

CUSTOMER SOLUTIONS ELECTRIC TRANSPORTATION

Electric Transportation Biannual State Regulatory Update

February 2021

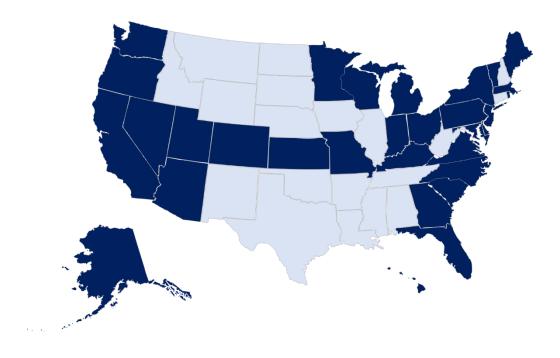
HIGHLIGHTS

Electric companies increasingly are engaged in many different facets of electric transportation (ET), and this document highlights recent regulatory activities related to ET. As of the end of January 2021:

- 52 electric companies had regulatory approval for ET filings.
- 31 states plus DC had approved ET filings (see Figure 1).
- Electric company approved ET filings represent a total of nearly \$3 billion.

Further details on approved filings are in the appendix table.

Figure 1. Approved EEI Member Company Regulatory Filings Related to Electric Transportation



APPENDIX: FILING DETAILS

Tables 1 provides electric company-specific details of approved electric transportation filings.

Table 1. Summary of Approved EEI Member Company ET Filings (in order by Decided Date)

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Hawaiian Electric Company	HI, 2013- 0000	10/26/2012, 07/01/2013	Electric vehicle (EV) rate pilot for residential and commercial customers and the installation of 25 DC Fast Charging (DCFC) stations and 80 Level 2 charging stations. In June 2017, extension of the project was approved under Docket No. 2016-0168.	\$2 million
Puget Sound Energy	WA, UE- 131585	08/28/2013, 04/30/2014	Incentive of \$500 to residential customers who purchase an EV and install a charger at home with a program cap of 5,000 customers. The company is required to collect data and submit a plan to assess the impact of EVs on the energy grid.	\$2.5 million
Madison Gas and Electric Company	WI, 3270- UR-120	06/02/2014, 12/23/2014	Provides company-owned chargers to a limited number of residential customers who charge at home. A public charging rate provides a discount to participants who charge at the company's 26 public chargers in exchange for charging data.	N/A
Indianapolis Power & Light Company	IN, 44478	04/09/2014, 02/11/2015	Modification to line extension policy to upgrade distribution system and extend service to charging stations.	\$3.7 million
Minnesota Power; Otter Tail Power Company; Xcel Energy	MN, 15- 111	01/30/2015, 06/22/2015	Approval of EV time-of-use tariffs.	N/A
San Diego Gas & Electric	CA, A1404014	04/11/2014, 01/28/2016	Three-year vehicle-to-grid integration pilot program to support the installation of up to 3,500 charging stations at 350 sites. At least 10 percent of the stations will be installed in disadvantaged communities.	\$45 million
Louisville Gas & Electric Co. and Kentucky Utilities Co.	KY, 2015- 00355	11/13/2015, 04/11/2016	Install up to 10 electric company-owned Level 2 charging stations in each service territory. The stations will charge an hourly rate prorated to the actual time spent plugged in. Non-residential customers may host chargers for a monthly fee to offset the expected amount of electricity to be used at the station.	\$0.5 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Pacific Gas & Electric Company	CA, A1502009	02/09/2015, 12/15/2016	Make-ready EV infrastructure to support 7,500 charging ports in multi-unit dwellings, disadvantaged communities, and workplaces; ownership of 35 percent of EV infrastructure in multi-unit dwellings; and provide rebates for charging stations and infrastructure to cover 25 percent of costs for workplaces, 50 percent of costs for multi-unit dwellings, and 100 percent of costs in disadvantaged communities.	\$130 million
Consolidated Edison Company	NY, 16-E- 0060-263	01/29/2016, 01/25/2017	Establishes a new residential EV time-of-use tariff and provides incentives to customers who charge during off-peak periods. An expansion of already-existing light-duty time-of-use tariff to incentivize off-peak charging for medium- and heavy-duty vehicles was approved in September 2018.	\$6 million
Tampa Electric Company	FL, 20170015	01/10/2017, 05/24/2017	Developed a curriculum to educate high school students about the operation, maintenance, and ownership of EVs. The curriculum includes proper driving skills to maximize the efficiency of driving an EV; different types of charging technologies; and information about how electric rates are set and when charging is the least expensive.	\$0.4 million
Rocky Mountain Power	UT, 16- 035-36 Phase Three	9/12/2016, 6/28/2019	Five-year pilot includes incentives of up to \$7,000 for multi-port Level 2 charging stations and \$63,000 for multi-port DCFC stations to be deployed at non-residential and multi-unit dwellings; custom grant-based projects for non-residential customers and multi-unit dwellings; a time-of-use pilot and a load research study; and a customer outreach and education campaign.	\$10 million
Madison Gas and Electric Company	WI, 3270- TE-2017	08/01/2017, 08/24/2017	Expansion of already-existing EV pilot from 30 to 100 participants, which provides a companyowned charger to residential customers.	N/A
Alaska Electric Light and Power Company	AK, U-17- 002	11/28/2016, 10/04/2017	Rate that incentivizes off-peaking charging with the option for residential and small commercial customers to rent electric vehicle infrastructure from the company for \$121.56 per year.	N/A
Duke Energy	FL, 20170183- El	08/29/2017, 11/20/2017	Five-year program to purchase, install, own, and support 530 charging ports with a minimum of 10 percent installed in disadvantaged communities.	\$8 million
Eversource	MA, 17-05	01/17/2017, 11/30/2017	Install and own make-ready infrastructure for nearly 4,000 Level 2 charging stations at long-dwell locations and 72 DCFC stations at travel locations.	\$45 million
San Diego Gas & Electric	CA, A1701020	01/20/2017, 01/11/2018	Authority for implementation of six priority review projects, including a Port Electrification Project; Airport Ground Support Equipment Project; Electrify Local Highway Project; Fleet Delivery	\$18.6 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			Project; Green Shuttle Project; and a Dealership Incentive Project.	
Avista Utilities	WA, UE- 160082	02/14/2017, 02/08/2018	Installation of EV chargers, owned and operated by the electric company on a customer's side of the meter. Installation and management of 475 Level 2 ports at 240 homes, 175 workplace, fleet, multi-unit dwellings, and 60 public locations, plus seven DCFC station sites. Other components include non-time-of-use demand response experimentation; education and outreach; auto dealer incentives; and community/low-income focus. Premise wiring reimbursement of 50 percent up to \$1,000 for residential customers and \$2,000 for non-residential customers.	\$3.1 million
Pacific Power	OR, UM- 1810	12/27/2016, 02/27/2018	The pilot program includes communicating with customers through advertising and newsletters; development of self-service resources that will allow customers to locate tailored information about EVs easily; coordinating and promoting community events including ride-and-drives; and providing technical assistance to non-residential customers interested in installing EV charging infrastructure by performing on-site charging feasibility assessments. Throughout the duration of the pilot, Pacific Power will collect and analyze program data and metrics to help inform future programs.	\$4.6 million
National Grid	NY, 17-E- 0238	04/28/2017, 03/15/2018	Approved plan includes: 280 Level 2 ports and 16 DCFC ports at various locations; an education program; capital upgrades to accommodate future EV charging stations at commercial customer sites; and incentives to encourage installation of charging stations.	\$5 million
Consolidated Edison Company	NY, 17-E- 0814	12/28/2017, 04/24/2018	A business incentive rate for publicly accessible DCFC stations that reduces energy delivery costs between 34 percent and 39 percent.	N/A
AEP Ohio	OH, 16- 1852-EL- SSO	11/23/2016, 04/25/2018	EV charging rebate program allows the company to offset equipment and installation costs for up to 300 Level 2 charging stations at public locations, workplaces, and multi-unit dwellings, and 75 DCFC stations at public locations. The program is funded through a new "Smart City Rider."	\$10 million
Xcel Energy	MN, 17- 817	11/17/2017, 05/09/2018	A two-year pilot program to test wireless-capable electric vehicle supply equipment (EVSE) and address upfront cost barriers. Xcel will purchase and install the equipment for up to 100 program participants, who will have the option to pay for the EVSE over time through a fixed monthly charge. To encourage auto dealers to promote	N/A

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			the pilot program, Xcel Energy is providing a \$100 payment to auto dealers for each customer who participates in the pilot.	
Pacific Gas & Electric Company	CA, A1701022	01/20/2017, 05/31/2018	The EV Fast Charge program will install makeready infrastructure for approximately 234 DCFC stations at 52 publicly accessible sites with at least 25 percent of the sites located in disadvantaged communities. In addition, disadvantaged community sites are eligible for a \$25,000 rebate. The EV Fleets program will deploy make-ready infrastructure at a minimum of 700 sites, supporting the electrification of at least 6,500 medium- and heavy-duty fleet vehicles. A minimum of 15 percent of the budget must serve transit agencies, while a maximum of 10 percent of the budget may serve forklifts. Fleet electrification sites located in disadvantaged communities (minimum of 25 percent) or those that support public transit/school buses are eligible to have up to 50 percent of charging station costs covered.	\$269 million
Southern California Edison	CA, A1701021	01/20/2017, 05/31/2018	Make-ready installations for a minimum of 870 sites to support electrification of at least 8,490 medium- and heavy-duty fleet vehicles. A minimum of 15 percent of the budget must serve transit agencies, 25 percent of the budget may go toward vehicles operating at ports and warehouses, and a maximum of 10 percent to serve forklifts. Sites located in disadvantaged communities or those that support public transit/school buses are eligible to have up to 50 percent of costs covered.	\$356 million
National Grid	RI, 4780	11/28/2017, 06/06/2018	The three-year pilot includes an off-peak charging rebate; make-ready infrastructure with the goal of deploying 320 Level 2 ports at 38 sites and 46 DCFC ports at 12 sites; a demand charge discount to DCFC accounts; and fleet advisory services for 12 fleet operators in the state with 25 percent of funds allotted for government and public transit customers.	\$9 million
Consolidated Edison Company	NY, 14-M- 0101	06/08/2018, 06/20/2018	Electric school bus pilot with White Plains school district. Five buses will be used by the district during the school year. During the summer months, ConEdison will charge the batteries at times when demand is low and discharge the batteries during high demand times.	\$1.1 million
NV Energy	NV, 18- 02002	02/01/2018, 06/27/2018	The Electric Vehicle Infrastructure Demonstration (EVID) program includes incentives for a custom EV grant program; EV charging at multi-family dwellings, workplaces, and fleets; and incentives	\$15 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			for Level 2 and DCFC stations in support of the Nevada Electric Highway initiative.	
National Grid	MA, 17-13	01/20/2017, 09/10/2018	The three-year program will provide customers with incentives to install up to 1,200 Level 2 charging ports and 80 DCFC ports at public locations, workplaces, and multi-family dwellings. In addition, incentives will be provided to EV charging site hosts.	\$21 million
Liberty Utilities	CA, A1706033	06/30/2017, 09/27/2018	Supports the installation of up to nine DCFC stations around the Lake Tahoe region; provides rebates of \$1,500 to the first 1,000 residential customers and \$2,500 to 100 small business customers who install charging stations; customer education and outreach includes a focus group of small businesses to gather information on financial, business-related and implementation barriers; and supports the Tahoe Transportation District's procurement of EV buses within the next three to four years by fully covering the costs to install, operate, and maintain two charging stations.	\$6.6 million
Pacific Power	CA, A1706031	06/30/2017, 10/05/2018	The pilot program includes communicating with customers through advertising and newsletters; development of self-service resources that will allow customers to locate tailored information about EVs easily; coordinating and promoting community events including ride-and-drives; and providing technical assistance to non-residential customers interested in installing EV charging infrastructure by performing on-site charging feasibility assessments. Throughout the duration of the pilot, Pacific Power will collect and analyze program data and metrics to help inform future programs.	\$0.4 million
Pacific Power	WA, UE- 180757	09/06/2018, 10/11/2018	The pilot program includes communicating with customers through advertising and newsletters; development of self-service resources that will allow customers to locate tailored information about EVs easily; coordinating and promoting community events including ride-and-drives; and providing technical assistance to non-residential customers interested in installing EV charging infrastructure by performing on-site charging feasibility assessments. Throughout the duration of the pilot, Pacific Power will collect and analyze program data and metrics to help inform future programs.	\$1.6 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Evergy (formerly KCP&L)	MO, ER- 2018-0145	01/30/2018, 10/31/2018	Allows for rate base treatment of previously installed charging stations; however, the company agrees not to expand the network without further approval. Establishes a new customer class for EV charging stations.	\$3.5 million
Evergy (formerly KCP&L GMO)	MO, ER- 2018-0146	01/30/2018, 10/31/2018	Allows for rate base treatment of previously installed charging stations; however, the company agrees not to expand the network without further approval. Establishes a new customer class for EV charging stations.	\$2.6 million
Indiana Michigan Power Company	MI, U- 20282	08/09/2018, 11/08/2018	Revised residential EV rate, "Tariff RS-PEV," allows EV electricity usage to be charged at a time-of-use rate. A customer's full residential usage is billed at the standard residential rate. The EV meter data will be used to increase or decrease the customer's bill based on the on-peak/off-peak price differentials specific to the EV usage.	N/A
Portland General Electric	OR, ADV 831	9/21/2018, 11/20/2018	Rates for the use of PGE's EV charging stations by all users. Pricing for DCFC: \$5 flat fee per session and an additional \$0.19/kWh if charging during on-peak hours. Pricing for Level 2: \$3 flat fee per session and an additional \$0.19/kWh if charging during on-peak hours. Additionally, customers can purchase a single monthly membership (\$25 per month) or 50 or more monthly memberships (\$20 per month). The on-peak charging rate will apply. These rates will be reviewed annually.	N/A
Puget Sound Energy	WA, UE- 180877	10/26/2018, 12/13/2018	Approved pilot includes: education and outreach; installation and ownership of 225 Level 2 charging stations in workplaces and multi-unit dwellings; four DCFC and two Level 2 charging stations in public locations; and development of electric mobility program for disadvantaged communities. The pilot also contains a five-year residential charging component where the company will install and own 500 Level 2 charging stations with the intention of identifying methods to encourage off-peak charging.	\$13 million
Evergy (formerly KCP&L)	KS, 18- KCPE- 480-RTS	05/01/2018, 12/13/2018	New tariff establishes a flat rate of \$0.20/kWh for Level 2 and \$0.25/kWh for Level 3 charging stations with a maximum of 350 charging stations eligible to participate. Inclusion or exclusion of infrastructure investment in rate base was not specified, except for the Tariff rate.	\$5.6 million
Madison Gas and Electric Company	WI, 3270- UR-122	07/17/2018, 12/20/2018	Low load factor rate provision revision that will reduce on-peak demand charges by 50 percent for qualifying customers.	N/A

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
PECO Energy Company	PA, R- 2018- 3000164	03/29/2018, 12/20/2018	The five-year EV DCFC Pilot Rider (EV-FC) was effective July 1, 2019, and available to eligible commercial and industrial customers that own at least one publicly available DCFC station. The pilot will provide a demand credit to a customer's billed distribution demand, which will be equal to 50 percent of the combined maximum nameplate capacity rating for all DCFCs connected to the service. Eligible customers will receive the credit for up to 36 months or until the pilot ends, whichever comes first.	N/A
Duquesne Light Company	PA, R- 2018- 3000124	03/28/2018, 12/20/2018	Approval of make-ready infrastructure rebate for Level 2 public charging stations and ownership of make-ready infrastructure and DCFC stations solely used for company-owned vehicles and for the Port Authority of Allegheny County electric bus evaluation. Additional program components include a \$60 credit (with a \$70,000 annual max) to customers who register their EVs with Duquesne and funding for education and outreach.	\$1.5 million
Southern California Edison	CA, A1410014	07/09/2015, 01/25/2016	Install make-ready infrastructure for up to 1,500 Level 2 charging stations; provides rebates for charging stations at various levels including 25 percent of costs for workplaces, 50 percent for multi-unit dwellings, and 100 percent for disadvantaged communities; and implement a market education program.	\$22 million
	D1812006	3/05/2018, 12/13/2018	In addition to the \$22 million approved in A1410014, SCE received \$22 million to continue implementing its make-ready infrastructure installations until the Commission decides on SCE's pending make-ready expansion program ("Charge Ready 2").	\$22 million
Consumers Energy	MI, U- 20134	05/01/2018, 01/09/2019	The approved three-year "PowerMIDrive" pilot program includes: a \$500 rebate for customers who purchase an eligible charger and enroll in the Nighttime Savers Rate; \$5,000 rebates for the installation of approximately 200 Level 2 charging stations at multi-unit dwellings, workplaces, and other publicly accessible chargers; and up to \$70,000 in rebates for the installation of 24 DCFC stations. A separate order was issued approving regulatory asset treatment of the pilot program costs.	\$10 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Baltimore Gas & Electric Delmarva Power Potomac Edison Pepco	MD, 9478	01/19/2018, 01/14/2019	In response to PC 44, the five-year modified pilot program includes: a \$300 rebate to residential customers who install Level 2 charging stations; installation of 5,000 charging stations at various locations, including public spaces, multi-unit dwellings, and workplaces; and the development of a residential EV-only time-of-use rate. In addition, up to five percent of program costs can be allocated to education and outreach.	\$50.1 million
Tucson Electric Power	AZ, E- 01933A- 17-0250	12/22/2017, 02/06/2019	Smart City EV Buildout pilot includes investment in charging infrastructure at workplaces, multiunit dwellings, neighborhoods, and educational campuses; support for the electrification of commercial fleets; \$500 rebate to residential customers who install EV chargers up to 50 percent of total costs; \$100 incentive to home builders who pre-wire new homes for EV infrastructure; and a new residential EV tariff. The company also requested approval to engage in the Regional Electric Vehicle Plan, which supports development of EV infrastructure along highways.	~\$2.2 million
Central Hudson Gas & Electric Corporation, Consolidated Edison Company, New York State Electric & Gas, Orange & Rockland Utilities, Rochester Gas and Electric, National Grid	NY, 18-E- 0138	11/21/2018, 02/07/2019	A per-plug incentive for publicly available DCFC stations. The purpose of the incentive payment is to support the deployment of DCFC stations while utilization is relatively low by offsetting electric delivery cost. The incentives are available for plugs rated at 75 kilowatts (kW) or greater and decline over a set period. Maximum incentive payments are set for each operating company.	\$31.6 million
Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, West Penn	PA, R- 2019- 3007069	01/11/2019, 02/28/2019	Adds language to tariff supplements regarding the following: the sale of electricity from a third party-owned EV charging station is not considered a sale for resale; the definition of an EV and an EV charging station; types of EVs permitted; and EV charging station policies related to construction and installation.	N/A

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Power Company				
Hawaiian Electric Company	HI, Transmittal No 18-06	12/18/2018, 03/20/2019	A five-year pilot electric bus tariff based on commercial time-of-use rates to support the adoption of electric buses into commercial and public transit fleets.	N/A
Pepco	DC, FC1130/ FC1155	09/07/2018, 04/12/2019	Deployment of make-ready infrastructure for 55 Level 2 and DC Fast Charging (DCFC) public stations; 12 Level 2 and DCFC charging stations to support taxis and rideshare services; and six charging stations to support electric buses. Additionally, a residential whole-house time-of- use rate was approved.	\$4.8 million
DTE Energy Company	MI, U- 20162	07/06/2018, 05/02/2019	Three-year Charging Forward pilot will provide \$500 rebates to approximately 2,800 residential customers; make-ready infrastructure to support the deployment of DCFC stations with a rebate of \$20,000 per charger and Level 2 charging stations at workplaces and multi-family dwellings with a rebate of \$2,500 per port. Additionally, make-ready infrastructure will support fleets including delivery, public transit, school buses, and shared mobility. Also includes a customer education and awareness component.	\$13.1 million
Delmarva Power	DE, 17- 1094	10/19/2017, 6/4/2019	Approved program offerings include: a mandatory EV-only time-of-use rate for residential customers who install second meters, install and own two Level 2 charging stations in selected neighborhoods and two DCFC stations along main transportation corridors. And establish a working group to evaluate data from the pilot, examine EV issues, market conditions, and new offerings for future programs.	\$0.5 million
Rocky Mountain Power	UT, 16- 035-36 Phase Five	3/8/2019, 6/28/2019	In partnership with Utah State University's Sustainable Electrified Transportation Center and the Utah Transit Authority (UTA), Rocky Mountain Power will develop a power balance and response system for UTA's multi-modal transportation hub with EV charging that has high peak power demand and includes chargers with outputs up to 400 kW. The project combines the diversity of electric charging needs (light rail, bus, passenger, truck, and ride hailing services) at an intermodal transit center to create a multi-megawatt, co-located, coordinated, and managed charging system. The combination of diverse loads allows the opportunity to share infrastructure costs and actively manage energy grid impacts.	\$2 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Xcel Energy	MN, 18- 643	10/12/2018, 07/17/2019	Multi-element electric transportation pilot program, which includes an EV fleet service pilot and public charging pilots. The fleet pilot will provide advisory services and make-ready infrastructure to support its customers, including Metro Transit, in its procurement of eight 60-foot electric buses and the Minnesota Department of Administration and the City of Minneapolis in its goals to electrify its fleets through the deployment of 290 ports. The public charging pilots will include a corridor pilot providing makeready infrastructure for DCFC stations and a community infrastructure pilot, where Xcel will partner with Saint Paul and Minneapolis to build a network of community mobility hubs that will help expand a non-profit car sharing service that is intended to increase access to EVs and mobility services for low-income customers.	\$23.6 million
San Diego Gas & Electric	CA, A1801012	1/22/2018, 8/15/2019	The approved proposal included one program and one pilot. The program focuses on deploying make-ready infrastructure to support at least 3,000 medium- and heavy-duty and off-road vehicles. The pilot focuses on electric school buses as a bi-directional asset similar to a stationary storage device. The bus pilot will provide 10 electric school buses that will serve dual purposes; provide transportation to students in a participating school district; and, when the buses are not being driven, use them as distributed energy resources that will be bid into the CAISO market through a vehicle-to-grid pilot.	\$109.1 million
Southern California Edison	CA, Advice Letter 3982-E	4/2/2019, 9/16/2019	Southern California Edison is the interim administrator of the Clean Fuel Reward (CFR) point-of-purchase rebate program for EVs. The CFR rebate is funded by Low Carbon Fuel Standard (LCFS) credits generated by electric companies in the state on behalf of their residential customers who drive EVs. The rebate is available to anyone who resides in California and purchases or leases a new eligible EV from a participating retailer. The current reward amount is up to \$1,500 per EV, depending on battery size.	N/A
Minnesota Power	MN, 19- 337	5/16/2019, 9/5/2019	Three-year rate pilot for commercial and industrial customers with a 30-percent cap to ease high demand charges associated with EV charging, particularly in fleet and public charging applications. Customers who charge during offpeak and super-off-peak hours are not subject to demand charges.	N/A

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Pacific Gas & Electric Company	CA, A1807021	7/30/2018, 9/10/2019	Low- to moderate-income EV charger installation incentive and education program (Empower EV) will provide approximately 1,200 point-of-sale incentives for Level 2 charging stations and will cover costs of approximately 800 panel upgrades. Participants will be defaulted to a TOU rate and will receive assistance from PG&E to determine an optimal rate for the customer's energy usage.	\$4.1 million
Appalachian Power Company	VA, PUR- 2019- 00067	4/23/2019, 9/12/2019	A time-varying rate for residential customers that offers reduced cost off-peak electricity for EV charging. This rate allows EV charging activity to be billed separately and specifically using a dedicated meter within the existing premise service. The rate is experimental and will close after four years, unless an extension is requested.	N/A
Xcel Energy	CO, 18A- 0606EG	8/22/2019, 9/23/2019	The Charging Perks Pilot will test smart charging technology with residential customers. Xcel Energy plans to work with automakers to pass demand management instructions through the automaker to the vehicle. In contrast to traditional event-based demand response, the pilot will evaluate shifting the customer's EV charging every day to reduce peak demand, shift charging into the cheapest hours of electricity production, and initiate charging during hours of renewable curtailment.	\$0.8 million
National Grid	MA, 18- 150	11/15/2018, 9/30/2019	Approval of a residential off-peak charging rebate, fleet advisory services, and a research and development plan that will look at the economic, environmental, grid, and customer benefits of co-locating DCFC charging stations with third-party deployed storage and solar to help mitigate grid impacts of DCFC. For the fleet advisory services, public transit (including school buses) and government fleets will be eligible to receive assistance to make informed decisions about electrifying their fleets, including studying environmental impacts, total cost of ownership, and the number of vehicles and charging ports needed.	\$9 million
Xcel Energy	MN, 19- 186	2/22/2019, 10/7/2019	Residential EV Subscription Pilot that provides a monthly subscription fee, ranging from \$33.22 to \$46.15 depending on the plan selected, for unlimited EV charging during off-peak hours. Customers may choose their preferred charging equipment and pay for it either upfront or through a bundled customer charge. A second meter is not required as the customer's EV charging	N/A

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			station and WiFi will be used to monitor electricity consumption. Customers also have the option to have 100 percent of EV charging electricity from renewable resources. There is also a small budget for customer education and marketing.	
Ameren Missouri	MO, ET- 2018-0132	2/22/2018, 2/6/2019	Approval of only the Corridor Charging Sub- Program, part of the Charge Ahead-Electric Vehicles program, which, through an RFP process, will provide incentives up to \$360,000 per site for development and long-term ownership and operation DCFC stations at approximately 11 pre-determined locations along major highway corridors in Ameren Missouri territory.	\$4.4 million
		8/8/2019, 10/17/2019	Approval of the Charge Ahead – Local Incentives program that will provide financial incentives for multi-family, public around-town, and workplace/fleet charging stations. This program initially was denied by the Commission in early 2019. The program will provide incentives of \$5,000 per Level 2 port and \$20,000 per DCFC port (max 50 kW). Incentives cannot exceed 50 percent of total project cost and limits to number of charging ports incentivized apply.	\$6.6 million
Pacific Gas & Electric Company	CA, A1811003	11/5/2018, 10/28/2019	Commercial Electric Vehicle Rate creates a new rate class for commercial EV charging customers like workplaces, public fast charging, and medium- and heavy-duty fleets. The new rate aims to provide a more affordable and simple structure for EV charging with a new "subscription" charge based on connected charging capacity, plus a time-of-use volumetric rate that encourages charging overnight and during mid-day hours. Pacific Gas and Electric Company must not collect any non-marginal distribution costs through the new rates. The company is required to file an application for a real-time electric vehicle commercial rate within the next 12 months.	N/A
Southern California Edison	CA, A1807022	7/30/2018, 11/7/2019	Two two-year pilots to install charging stations (with option for electric company to own and operate) at K-12 schools, state parks, and state beaches with a focus on disadvantaged communities. The company proposes to support 250 Level 1 or Level 2 ports at approximately 40 K-12 educational facilities; and support Level 2 and DCFC ports at approximately 27 state parks/beaches. Non-grid connected solar + energy storage + EV charging units will also be	\$19.7 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			deployed at select park and beach locations. Rebates covering the charging station and some O&M costs will be provided if the site owner chooses to own charging stations. Each pilot will have promotional and educational campaigns targeted at site users, advocates, and employees. School locations also will support grade-level-specific material; faculty education; and an EV economics program.	
Liberty Utilities	CA, A1807025	7/30/2018, 11/7/2019	Approval for two separate pilots, one focused on deploying charging stations at schools and the other focused on parks. In both pilots, Liberty will own and install two DCFC with the remainder being Level 2 charging stations at 17 schools and three parks. The stations would be for public, fleet vehicles, and electric school buses, in addition to five dual pedestal charging stations at three parks. The pilots also include an education and outreach component, in which the company would provide information on the new EV charging equipment, EV facts, electric rates, and program information.	\$4.7 million
Pacific Gas & Electric Company	CA, A1807020	7/30/2018, 11/7/2019	Proposed EV Parks pilot includes 36 Level 2 ports and two DCFC ports across 10 different locations for fleet vehicles and park visitors. In addition, the EV Park pilot includes five locations with off-grid charging. For the EV Schools pilot, the company would install 90-130 Level 2 ports at approximately 22 campuses over two years. If a campus decides to own the chargers, a rebate will be provided.	\$11.3 million
San Diego Gas & Electric	CA, A1807023	7/30/2018, 11/7/2019	Proposes to install, own, and operate 120 Level 2 and 20 DCFC stations at 12 state parks/beaches and 10 city/county parks. Additionally, 184 Level 2 and 12 DCFC stations will be installed at 30 schools and educational institutions. The company's existing EV time-of-use rate will be utilized.	\$18.7 million
Portland General Electric	OR, UM- 1811	12/27/2016, 02/16/2018 2/15/2019, 11/7/2019	Approval for a pilot with the local transit agency, TriMet, and deployment of additional charging stations on the Electric Avenue Network. For the TriMet pilot, PGE will install own and operate all charging infrastructure including the stations. Additionally, PGE will deploy an additional six Electric Avenue Charging sites. The approval also includes investment in education and outreach through technical assistance, builder outreach, ride & drives, and regional market transformation. A subsequent settlement	\$6.9 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			amended some of the terms of the pilot in Order 19-385.	
Georgia Power Company	GA, 42516	6/28/2019, 12/31/2019	Approval for recovery of capital investments in EV charging programs that have been made since 2014. Georgia Power's Electric Transportation Initiative includes five elements: an education and awareness campaign; \$250 to residential customers who install Level 2 chargers; a \$100 incentive to builders who install 240v circuits in EV-ready new homes; and \$500 available to commercial customers that install Level 2 chargers at their facilities. Georgia Power will install, own, and operate charging islands of Level 2 and DC Fast Charging (DCFC) stations at 11 company-owned facilities and 25 charging islands at strategically selected public areas in order to collect data on charging behavior. Additionally, the company will be allowed to recover an additional \$6 million annually to support upgrades to wires and transformers for customer-sited charging stations.	\$11 million
Maui Electric Company	HI, 2018- 0422	12/21/2018, 1/10/2020	Establishes a public charging TOU rate (Schedule EV-MAUI) for charging stations on the Evohana network and transitions ownership and operation of up to 4 DCFC station locations to Maui Electric for replacement.	\$0.3 million
Consolidated Edison Company	NY, 19-E- 0065	1/31/2019, 1/16/2020	Approval to continue the existing SmartCharge NY Program and earn off-the-bill incentives. However, the company will implement new incentives for residential customers on the time of use rate (SC 1 Rate III) and for medium- and heavy-duty vehicles including buses. The company will also implement two make-ready infrastructure programs: the first will be for publicly accessible DCFC and the second for fleet DCFC. Additionally, the Company is required to develop network and non-network maps for purposes of identifying interconnection costs; identify an EV point of contact in the Energy Services Dept.; develop an EV request form to streamline EV application process; enhance customer service representative training on EVs; enhance the Company's EV communication channels; and provide a presentation on V2G integration.	\$39 million
Indiana Michigan Power Company	MI, U- 20359	6/24/2019, 1/23/2020	The "IM Plugged in Pilot Program" includes a \$500 per port incentive for residential and small commercial customers in conjunction with EV-only tariffs; up to \$2,500 for workplace, multi-unit dwellings, and fleet incentives and waived	\$0.7 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			contribution in aid of construction (CIAC) for new service; up to \$20,000 per port for interstate corridor DCFC at approved locations along with waived CIAC, and a customer education and outreach component.	
Baltimore Gas and Electric, Delmarva Power, Pepco	MD, 9478	11/18/2019, 2/5/2020	A multi-vehicle (MV) Charging Rate, available to customers with five or more EVs, which is equal to 75 percent of the DCFC station standard rate. This rate is only available at electric companyowned EV charging stations.	N/A
Portland General Electric	OR, UM2033	9/30/2019, 2/13/2020	A transportation electrification plan that includes an overview of the current EV market, what EV programs the company currently offers, and potential future programs. Of possible future programs, the company may consider some of the following: new residential EV rates, on-bill payments/subscriptions, smart charging rebates for residential and commercial customers, makeready infrastructure deployment for public charging and fleets, and charging as a service for fleets.	N/A
Central Maine Power	ME, 2019- 00217	11/19/2019, 02/25/2020	The Public Utilities Commission conducted an RFP for pilot programs to support electric transportation and approved two proposals from Central Maine Power. Central Maine Power's Make Ready Pilot Program will perform makeready work for 60 Level 2 charger plugs at a cost of no more than \$4,000 per plug. Additionally, a Rate Design Pilot Program is intended to reduce operating costs for DC fast charging station operators by offering a two-part demand rate that bills distribution related costs on a monthly non-coincident peak basis and transmission related costs on a monthly coincident peak basis.	\$0.2 million
Portland General Electric	OR, ADV1081	1/14/2020, 2/25/2020	A demonstration project that aims to evaluate the viability and effectiveness of installing Level 2 EV chargers on PGE-owned distribution poles at two locations. Specific learnings include: operational considerations for deploying charging on poles; city operational considerations such as permitting requirements, right-of-way constraints, and parking designations; customer awareness by surveying customers in the area on their awareness of the stations and the chargers' impact on their willingness to consider an EV; and evaluation of economics and potential program models.	N/A

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Indiana Michigan Power	IN, 45235	5/14/2019, 3/11/2020	The "IM Plugged in Pilot Program" includes a \$500 per port incentive, capped at 1,000 ports annually, for residential and small commercial customers in conjunction with EV-only tariffs; \$250 per port incentive, capped at 800 ports annually, for multi-unit dwellings, fleet, and workplace charging stations and the option to choose an extended 5-year revenue credit period for new service; and a customer education and outreach component.	\$2.1 million
Ameren Missouri	MO, ER- 2019-0335	7/3/2019, 3/18/2020	Optional residential EV Time of Use rate (EV Savers) to encourage overnight charging. Applies to the whole house.	N/A
Dominion Energy Virginia	VA, PUR- 2019- 00154	9/30/19, 3/26/20	Smart Charging Infrastructure Pilot will provide rebates for the infrastructure and upgrades (make-ready) to enable EV charging and rebates for smart charging equipment. The pilot will focus on deploying up to 25 Level 2 charging stations at multi-family sites, 400 Level 2 charging stations at workplaces, 30 DCFC at public locations, and 60 DCFC to transit agencies. One eligibility requirement is that participants must agree to provide charging data to the company. Dominion also will own up to four charging stations to support the electrification of the rideshare market segment in strategic locations.	\$22 million
Idaho Power	OR, UM- 2035	11/1/2019, 5/5/2020	An electric transportation framework which provides an overview of the current EV market, what EV programs the company currently offers, and potential future programs. Possible future programs, include: providing incentives to residential customers for the installation of EV charging infrastructure, rest stop and truck stop infrastructure deployment, and charging station deployment in areas where EV educational events are held (i.e., local colleges).	N/A
NV Energy; Sierra Pacific Power	NV, 20- 01040	1/31/2020, 6/10/2020	The 2020-2021 Annual Plan for the EV Infrastructure Demonstration (EVID) program continues to offer incentives for the installation of Level 2 workplace and public charging stations at up to \$3,000 per port and increases the incentives for the installation of Level 2 chargers at multi-unit dwellings and fleet customers to \$5,000 per port (previously \$3,000 per port). Public, multi-family, workplace, and fleet customers may also apply for DCFC incentives of \$400 per installed kW (with a cap of \$40,000 or 50 percent of installed costs) per charger. New incentives are added for governmental and low-income multi-unit dwelling customers for the	\$8 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			installation of Level 2 chargers at up to \$10,000 per port in partnership with the Nevada Governor's Office of Energy to cover 100 percent of total project costs. A Custom Grant program provides financial support for EV infrastructure deployment projects not eligible for other incentive programs. Up to \$500,000 per site is available under the Nevada Electric Highway program. An electric school bus component covers up to 75 percent of total project costs, including the electric school bus.	
Pacific Power	OR, UM- 2056	2/3/2020, 6/18/2020	The Oregon Transportation Electrification (TE) Plan integrates Pacific Power's TE actions into one document, identifies a portfolio of programs the company is considering to address market barriers in the company's service territory, and provides an overview of the current EV market. The possible future programs include: new rate designs, the development of a market study, expanding the company's own EV fleet, updating commercial line extension allowance for transportation electrification, developing incentive programs for residential and commercial infrastructure, developing a fleet make-ready incentive program, and increasing awareness and education.	N/A
Consolidated Edison Company, Central Hudson Gas & Electric, National Grid, New York State Electric & Gas, Orange and Rockland Utilities, Rochester Gas and Electric	NY, 18-E- 0138	04/24/2018, 07/16/2020	A Make-Ready Program allows all investorowned electric companies in the state to implement programs to support EV charging infrastructure. Incentives are designed to offset costs associated with electric company-side infrastructure and customer-side make-ready infrastructure for DCFC and Level 2 sites. Incentives will cover up to 100, 90, or 50 percent of these costs depending on criteria such as proximity to low-income and environmental justice communities. The program targets more than 35,000 Level 2 ports at workplaces, 18,500 Level 2 ports at public locations, and 1,500 DCFC ports, with specific budgets and port targets for each operating company. In addition, electric companies will establish managed charging programs, Fleet Assessment Services, Medium- and Heavy-Duty Fleet Make-Ready Pilot programs, and Transit Authority Make-Ready Support programs. The New York State Energy Research & Development Authority (NYSERDA) will lead environmental justice-focused programs.	\$701 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Xcel Energy	WI, 4220- TE-104	11/20/2019, 7/16/2020	The "Residential EV Home Service Program" allows the customer's house load to remain on a standard rate, while the customer's EV load is subject to a three-period rate structure. The residential "Voluntary EV Charger Service Program" is available to residential customers on Xcel's time-of-day rate for the whole house, including the EV load. Under both programs, Xcel owns and maintains the charging equipment, and customers may choose to pay for the equipment and installation up front or through a bundled customer charge. The "Commercial EV Service Program" allows Xcel to study a modification to Wisconsin's line extension policies by providing eligible medium and large EV customers with a revenue-based allowance. Xcel also provides make-ready infrastructure for commercial customers. Customers have the option for Xcel to install, own, and operate the charging equipment for a monthly fee.	N/A
Green Mountain Power	VT, 19- 3586-TF	9/20/2019, 7/20/2020	Two new EV charging rates for residential customers offer a reduced rate for EV charging and use the metering capability of the charging equipment to disaggregate EV load from the house. The "Managed Charging" rate allows Green Mountain Power to limit customer charging during Peak Events; if the customer overrides and charges during the Peak Event, they will pay an increased rate for energy used during the peak event window. The "TOU" rate includes an eight-hour block of Peak Hours with an increased rate.	N/A
Dominion Energy Virginia	VA, PUR- 2019- 00201	12/3/2019, 7/30/2020	The 2019 demand-side management programs include two new residential EV programs. The Energy Efficiency/Demand Response program provides an incentive for EV customers to purchase a qualifying EV charger. Customers are automatically enrolled in a demand response program that, during times of peak system demand, would activate the chargers to temporarily reduce load. The Peak Shaving program provides an annual incentive to customers who already have a qualifying EV charger in exchange for allowing the company to reduce the operating cycle of their charger during periods of high demand.	\$4.8 million
Southern California Edison	CA, A1806015	6/26/2018, 8/27/2020	The Charge Ready 2 program is a continuation of Southern California Edison's Charge Ready pilot. The program includes a \$417.5 million for	\$436 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			charging infrastructure, \$14.5 million for marketing, education, and outreach, and \$4.3 million for evaluation. The company expands its ability to provide make-ready infrastructure to support 22,200 Level 1/Level 2 charging ports. SCE will own and operate up to 2,500 charging ports at multi-unit dwellings within disadvantaged communities to make it easier for customers to participate by providing a turnkey solution. New Construction Rebates for approximately 15,400 ports provide up to \$3,500 per port for new construction multi-unity dwellings to install charging stations. Make-ready infrastructure and rebates for 205 DC fast charging ports is also available. SCE will target 50 percent of the make-ready investment in disadvantaged communities and 30 percent in multi-unit buildings. Participating customers must take part in a demand response program and accept time of use pricing.	
Xcel Energy	MN, 19- 559	8/30/2019, 10/6/2020	An expansion of Xcel Energy's Residential Electric Vehicle Service Pilot into a full-time, permanent offering for all qualifying customers called "Electric Vehicle Home Service." Customers may choose to pay for their charging equipment and installation in a bundled customer charge or pay the full cost of their charging equipment and installation. In both cases, EV charging is billed via the charging equipment's metering on a three-tier TOU rate. A new Voluntary Electric Vehicle Charger service provides similar payment options as the EV Home Service for customers taking service under the Residential Time of Day tariff.	N/A
Duke Energy Carolinas, Duke Energy Progress	SC, 2018- 321-E and 2018-322- E	10/10/2018, 10/7/2020	The three-year Electric Transportation Pilot allows Duke Energy to install, own, and operate 60 DC fast charging stations across its service territory (40 in Duke Energy Carolinas and 20 in Duke Energy Progress). The stations will be located on highway corridor locations to enable intra- and inter-state travel. A residential EV charging program provides up to \$1,000 for up to 400 Duke Energy Carolinas customers who install a Level 2 charging station, provide access to charging data, and shift charging to observe off-peak periods. This pilot program is the first in the Carolinas.	\$8.8 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
Portland General Electric	OR, ADV 1151	7/15/2020, 10/20/2020	A three-year Residential EV Charging Pilot offers rebates for the purchase of a Level 2 charging station and helps manage the load of EV charging. Portland General Electric will provide rebates for up to 5,000 customers (\$500 standard rebate and \$1,000 rebate for low-income customers). Customers will be automatically enrolled in a Smart Charging Program and receive up to \$50 for successful participation.	\$17 million
Otter Tail Power Company	MN, 20- 181	1/31/2020, 10/27/2021	The three-year pilot program (2021-2023) allows Otter Tail to install, own, and operate 11 DCFC stations throughout its service territory. Otter Tail also will install 10 Level 2 charging stations that will be maintained by site hosts. Time-of-day rates will incentivize charging during off-peak periods.	\$2.1 million
San Diego Gas & Electric	CA, A1907006	7/3/2019 12/21/2020	An optional EV High Power (EV-HP) rate for separately metered EV charging greater than 20 kilowatts (kW), including DCFC stations and medium- and heavy-duty EV charging. The rate replaces demand charges with a fixed monthly subscription charge based on the power level the customer chooses. Energy charges are based on a TOU rate.	N/A
Duke Energy Carolinas, Duke Energy Progress	NC, E-2 Sub 1197 and E-7 Sub 1195	3/29/2019, 11/24/2020	The three-year Electric Transportation Pilot includes four major components. An EV School Bus Charging program provides up to \$215,000 per bus for 15 buses in each of the Duke Energy Carolinas (DEC) and Duke Energy Progress (DEP) territories. Participating customers will share charging data and test load management and bidirectional charging capabilities. Duke will install, own, and operate Level 2 charging stations to provide charging access for residential customers in multifamily dwellings (50 charging stations in DEC territory and 30 in DEP territory). Duke will install, own, and operate Level 2 charging stations at public destinations (100 charging stations in DEC territory and 60 in DEP territory). Duke also will install, own, and operate up to 24 DCFC in 12 locations in its DEC territory and up to 16 DCFC in 8 locations in its DEP territory.	~\$25 million
Portland General Electric	OR, ADV 1155	7/17/2020, 12/15/2020	A three-year Business EV Charging Rebate Pilot will provide rebates for approximately 1,000 charging ports at workplaces, multifamily dwellings, destination centers, and light-duty EV fleets. The standard rebate amount is \$500 per	\$1 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			port, while income eligible multifamily participants may receive \$2,300 per port.	
Consumers Energy	MI, U- 20697	2/27/2020, 12/17/2020	A three-year PowerMIFleet pilot allows Consumers Energy to pay for the full cost of the service connection and provides rebates for the installation of charging stations for participating commercial fleets and workplaces. Level 2 charging station rebates are up to \$5,000 per dual port charger, and DCFC station rebates are up to \$70,000 for public use and \$35,000 for non-public chargers per 125 kW of charging capacity. Commercial customers receiving rebates may participate in a demand response program. Consumers Energy also will test bidirectional charging, including vehicle-to-building ("V2B") and potentially vehicle-to-building ("V2B") and potentially vehicle-to-grid ("V2G") functions, for demand response and emergency backup power. An education and outreach component includes providing support to fleet customers through a fleet electrification concierge service resulting in published case studies.	\$12.2 million
Florida Power & Light	FL, 20200170- EI	6/19/2020, 12/21/2020	Three five-year pilot tariffs for the purpose of studying and supporting the development of public DCFC stations. The first tariff, Rate Schedule UEV, allows FPL to sell public charging services directly to EV drivers from certain FPL-owned DCFC stations at a rate of \$0.30 per kilowatt-hour. The other two tariffs, Electric Vehicle Charging Infrastructure Riders (Rate Schedules GSD-1EV and GSLD-1EV) are available to third party DCFC station operators and limit the amount of demand billed to these customers during billing periods with low charging station utilization.	N/A
Pacific Power, Portland General Electric	OR, UM 1826	9/25/2020, 12/29/2020	Pacific Power and Portland General Electric file annual program plans outlining how revenue from the Oregon Clean Fuels Program (CFP) will be spent. *Electric companies fund the program by generating CFP credits on behalf of their residential customers who drive EVs. Pacific Power's plan supports statewide education and outreach efforts and the Electric Mobility grant that funds innovative community projects. In 2021, Pacific Power's plan also will support an additional location for Pacific Power's fast charging network. Each location consists of four DCFC and one dual port L2 charger.	\$1.6 million*

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			Portland General Electric's plan supports a competitive grant program that prioritizes transportation electrification projects in underserved communities. The 2021 plan also includes funding for public charging infrastructure, an education and outreach campaign, and emerging technology pilots.	\$6.5 million*
Xcel Energy	CO, 20A- 0204E	5/15/2020, 1/11/2021	A three-year Transportation Electrification Plan includes five portfolios. Residential customers receive a \$500 rebate for installation costs when they provide their own charging equipment; or they may choose to have Xcel provide them one and pay a bundled service charge. The customer must enroll in a time-based rate and/or a charging optimization program. For multi-unit dwellings (MUDs), Xcel will install, own, and maintain make-ready infrastructure for multi-unit dwellings, with additional options depending on whether parking is shared or assigned. New Construction Rebates incentivize MUD building developers to install charging equipment. For commercial customers, Xcel will provide makeready infrastructure and the customer will provide their own charging equipment or have Xcel own and maintain the charging equipment. Xcel will partner with cities to develop community charging hubs to support electric shared mobility services and own and operate a limited number of public DCFC stations. A Research, Innovation, and Partnerships program allows Xcel to create customer projects to evaluate new EV-related technologies. Advisory Services are targeted for residential customers, fleets, and community planning. An Equity Rebate program will provide an EV purchase incentive for income-qualified customers (\$5,500 for a new EV, \$3,000 for a used EV).	\$108.7 million
Duquesne Light Company	PA, P- 2020- 3019522	4/20/2020, 1/14/2021	An optional Electric Vehicle Time of Use Rate (EV-TOU) is available to Residential, Small Commercial & Industrial (C&I) and Medium C&I customers with demand less than 200 kW who own or lease an EV or who operate EV charging infrastructure at the service location. The TOU supply rate applies to all of the customer's usage.	N/A
Public Service Electric and Gas Company	NJ, EO181011 11	9/26/2018, 1/27/2021	The Clean Energy Future – Electric Vehicle program will provide incentives to offset the cost of make-ready infrastructure for EV charging, with separate incentive amounts for customerside and electric company-side infrastructure. Up	\$205.2 million

Electric Company	State, Docket No.	Filed Date, Decided Date	Description	Budget
			to 40,000 residential customers may apply for an incentive up to \$1,500 for customer-side costs. Residential customers also are offered a time of use distribution-only rate provision for EV charging. Mixed Use Commercial customers (multi-unit dwellings, public locations, and government) may apply for up to \$7,500 per Level 2 charging port for customer-side costs. Incentives also are available for up to 300 new DCFC sites. New and existing DCFC sites may apply for a rebate toward a fraction of distribution electricity costs.	
			Total	\$2.97 billion