HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 1591 Electric Vehicle Regulation
SPONSOR(S): Maggard
TIED BILLS: **IDEN./SIM. BILLS:** SB 1176

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Energy, Communications & Cybersecurity Subcommittee		Walsh	Keating
2) State Administration & Technology Appropriations Subcommittee			
3) Commerce Committee			

SUMMARY ANALYSIS

Consumers and fleets considering electric vehicles (EVs), including all-electric vehicles and plug-in hybrid electric vehicles (PHEVs), need access to charging equipment. For most drivers, this starts with charging at home or at fleet facilities. Charging stations at workplaces, public destinations, and along highways offer more flexible charging opportunities at commonly visited locations.

There are several companies in the U.S that offer EV charging stations for public use under a variety of business models. In addition, public (investor-owned) electric utilities in Florida provide public EV charging stations partially funded through rates set by the Public Service Commission (PSC).

The federal government has set a goal to make half of all new vehicles sold in the U.S. in 2030 zero-emissions vehicles and to build a network of 500,000 chargers to help make EVs accessible to all Americans for both local and long-distance trips. Signed in November 2021, the Bipartisan Infrastructure Law, also referred to as the Infrastructure Investment and Jobs Act, contains $7.5 billion in funding for EV charging stations.

The bill:

- Prohibits public utilities from using rate-based investments in EV charging stations;
- Requires the PSC to adopt rules for the orderly transition of existing public utility investments in public EV charging stations to structurally separate subsidiaries, without adversely impacting the public utility's ratepayers;
- May limit public utility cost recovery to distribution-level system infrastructure that does not include EV charging stations;
- Eliminates a requirement that the Department of Agriculture and Consumer Services adopt rules to provide labeling and price-posting for EV charging stations.
- Requires the PSC to adopt rules that will facilitate the widespread deployment of EV charging stations and infrastructure through consumer choice and competition and the use of reasonable and affordable cost-based electric rates for non-utility providers of public EV charging service; and
- Requires the PSC to propose such rules by January 1, 2024, and to adopt final rules by January 1, 2025.

The bill does not appear to impact state or local government revenues or expenditures.

The bill provides an effective date of July 1, 2023.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Current Situation

Electric Vehicle Charging

Consumers and fleets considering electric vehicles (EVs), including all-electric vehicles and plug-in hybrid electric vehicles (PHEVs), need access to charging equipment. For most drivers, this starts with charging at home or at fleet facilities. Charging stations at workplaces, public destinations, and along highways offer more flexible charging opportunities at commonly visited locations.[1]

EV charging equipment is classified based on the rate of charge.[2]

- Alternating Current (AC) Level 1 equipment provides charging through a common 120 volt AC outlet. Most, if not all, EVs come with a portable Level 1 cord, so no additional charging equipment is required. Level 1 chargers can take 40-50 hours to charge an all-electric vehicle from empty and 5-6 hours to charge a PHEV from empty.[3]
- AC Level 2 equipment offers charging through 240 volt (in residential applications) or 208 volt (in commercial applications) electrical service, and is common for home, workplace, and public charging. As of 2021, 80% of public EV charging ports in the country were Level 2.[4] Level 2 chargers can charge an all-electric vehicle from empty in 4-10 hours and a PHEV from empty in 1-2 hours.[5]
- Direct-current (DC) fast charging equipment enables rapid charging along heavy traffic corridors at installed stations. As of 2021, over 15% of public EV charging ports in the country were DC fast chargers.[6] DC fast charging equipment can charge an all-electric vehicle to 80 percent in 20 minutes to 1 hour.[7]

Charging times vary depending on the depletion level of the battery, how much energy the battery holds, the type of battery, temperature, and the type of supply equipment.[8]

Public EV Charging in the U.S.

Currently in the U.S., there are almost 52,000 EV public charging stations offering a total of 133,603 charging ports. AC Level 2 charging ports comprise 103,133 of these ports, and DC fast charging ports comprise just less than 30,000 of these ports.[9] There are several companies in the U.S that offer EV charging stations for public use under a variety of business models. These market participants must raise and expend private capital and compete with other providers for high-usage locations.[10]

- ChargePoint is the country's largest EV charging network, with over 27,000 stations (i.e., locations) offering nearly 50,000 individual charging points, 1,700 of which are DC fast

[1] U.S. Dept. of Energy (DOE), Alternative Fuels Data Center, *Developing Infrastructure to Charge Electric Vehicles*, https://afdc.energy.gov/fuels/electricity_infrastructure.html (last visited Mar. 24, 2023).
[2] U.S. Environmental Protection Agency (EPA), *Plug-in Electric Vehicle Charging*, https://www.epa.gov/greenvehicles/plug-electric-vehicle-charging (last visited Mar. 24, 2023).
[3] U.S. Dept. of Transportation (USDOT), *Electric Vehicle Charging Speeds*, https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds (last visited Mar. 27, 2023).
[4] EPA, *supra* note 2.
[5] USDOT, *supra* note 3.
[6] EPA, *supra* note 2.
[7] USDOT, *supra* note 3.
[8] EPA, *supra* note 2.
[9] U.S. Dept. of Energy, Alternative Fuels Data Center (AFDC), *Alternative Fueling Station Counts by State,* https://afdc.energy.gov/stations/states (last visited Mar. 26, 2023).
[10] Florida Department of Transportation (FDOT), *Electric Vehicle Infrastructure Master Plan* (July 2021), at p. 18, https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/fto/fdotevmp.pdf (last visited Mar. 27, 2023).

chargers. Under ChargePoint's model, the owner of the property on which a charging station is located may set its own pricing; many of its stations are free to use, with the property owner absorbing the cost of electricity.[11]

- Tesla is the only EV manufacturer that owns and operates its own proprietary charging network. Tesla provides 6,000 stations offering about 28,000 charging points, most of which are DC fast chargers.[12] Tesla has agreed to open a portion of its charging network in the United States to all EVs, pledging to make 7,500 of its EV charging stations available by the end of 2024.[13]
- Electrify America is the most comprehensive DC fast charging network for non-Tesla EVs. At 800 charging stations, Electrify America offers just less than 3,500 DC fast chargers and 116 Level 2 chargers.[14] It was built by Volkswagen Group of America (VW) as part of a settlement agreement with the federal government related to VW's violation of U.S. emissions laws.[15] The network does not require a membership but offers a discount to people who sign up for a plan. Ford has partnered with Electrify America to offer network access to its EV buyers.[16]
- EVgo operates over 850 fast charging stations in more than 30 states, offering more than 1,900 DC fast chargers and 29,000 Level 2 chargers through EVgo and its partners.[17] EVgo's network does not require a membership but offers a discount on DC fast charging to people who sign up for a subscription. In 2022, GM announced that it was collaborating with Pilot Company to launch over 2,700 DC fast charging stations to be installed, operated, and maintained by EVgo and open to all EVs at up to 500 Pilot and Flying J travel centers.[18]
- Shell Recharge Solutions, formerly Greenlots provides about 3,000 total charging points, including 550 DC fast chargers, in the U.S., some of which are deployed at Shell gas stations. Shell may convert some U.S. gas stations to EV charging stations.[19]
- Francis Energy owns and operates over 125 charging stations in the U.S. offering over 625 individual charging points, including 530 DC fast charging ports nationwide. Started with a statewide fast-charging network in Oklahoma, it is currently working on other fast-charging projects in 24 U.S. states. The company plans to expand across America's heartland to help reduce range anxiety and increase EV adoption in areas where EV charging infrastructure is lacking.[20]
- Blink provides over 1,600 charging stations in the U.S., offering about 5,000 public chargers,[21] with less than 250 DC fast charging points nationwide.[22]
- EV Connect and EVCS each provide less than 250 DC fast charging ports nationwide, and aside from non-networked DC fast charging stations, all other charging companies each offer less than 100 DC fast charging stations across the U.S.[23]

Public EV Charging in Florida

Currently in Florida, there are almost 2,800 EV public charging stations offering a total of 7,200 charging ports. AC Level 2 charging ports comprise 5,421 of these ports, and DC fast charging ports

[11] U.S. News & World Report (U.S. News), *A Comprehensive Guide to U.S EV Charging Networks*, https://cars.usnews.com/cars-trucks/advice/ev-charging-stations, (last visited Mar. 26, 2023).
[12] *Id.*
[13] ArsTechnica, *Tesla finally agrees to open its charging network to all EVs in US*, https://arstechnica.com/tech-policy/2023/02/tesla-finally-agrees-to-open-its-charging-network-to-all-evs-in-us/ (last visited Mar. 26, 2023).
[14] Electrify America, https://www.electrifyamerica.com/ (last visited Mar. 27, 2023).
[15] For additional information on the settlement, *see* U.S. Environmental Protection Agency (EPA), *Volkswagen Light Duty Diesel Vehicle Violations for Model Years 2009-2016*, https://www.epa.gov/vw (last visited Mar. 26, 2023).
[16] U.S. News, *supra* note 11.
[17] EVgo Fast Charging, *EVgo Fast Charges the Nation*, https://www.evgo.com/cities/ (last visited Mar. 27, 2023).
[18] EVgo Fast Charging, *EVgo eXtend Expands Fast Charging in Collaboration with GM and Pilot Company*, https://www.evgo.com/videos/evgo-extend-expands-fast-charging-in-collaboration-with-gm-and-pilot-company/ (last visited Mar. 26, 2023).
[19] U.S. News, *supra* note 11.
[20] U.S. News & World Report, *Your Guide to the Francis Energy EV Charging Network*, https://cars.usnews.com/cars-trucks/advice/francis-energy-charging-network#:~:text=Francis%20Energy's%20DC%20fast%20charging,EV%20Charging%20app%20or%20Plugshare. (last visited Mar. 26, 2023).
[21] U.S. News & World Report, *Your Guide to the Blink EV Charging Network*, https://cars.usnews.com/cars-trucks/advice/blink-charging-network (last visited Mar. 27, 2023).
[22] U.S. News, *supra* note 11.
[23] U.S. News, *supra* note 11.

comprise 1,755 of these ports.[24] Florida law requires the Department of Agriculture and Consumer Protection to adopt rules to provide definitions, methods of sale, labeling requirements, and price-posting requirements for EV charging stations to provide consistency for consumers and the industry.[25]

In 2020,[26] the Legislature required the Florida Department of Transportation (FDOT) to develop a "Master Plan" for the development of public EV charging equipment along the State Highway System. DOT, in consultation with the Florida Department of Environmental Protection, the Public Service Commission (PSC), and other state agencies, developed the EV Infrastructure Master Plan (EV Master Plan or Plan) with extensive public engagement.[27] The stated goals of the EV Master Plan were to:

- Support both short-range and long-range EV travel;
- Encourage the expansion of EV use in the state; and
- Adequately serve evacuation routes in the state.

As noted in the EV Master Plan, which was published in July 2021,[28] a key aspect of providing a reliable EV charging network involves participation from electric utilities and involves the regulations set forth by the PSC. The Plan highlighted two main areas where these factors come into play: electric utility interaction with EV charging service providers, and electric utility-owned EV charging services.[29]

Considerations for Non-Utility EV Charging Providers

Make-Ready Costs

Florida law provides that the rates, terms, and conditions of EV charging services provided to the public by a non-utility are not subject to regulation by the PSC.[30] However, non-utility EV charging providers must interact with electric utilities for purposes of ensuring the installation or upgrade of distribution facilities needed to supply EV charging equipment with electricity. As noted in the EV Master Plan, under traditional utility regulatory principles, the non-utility EV charging provider, rather than the utility's general body of ratepayers, generally would be required to pay for these "make ready" costs. The Plan also notes that the Legislature has encouraged utility investment in certain projects in the past by allowing cost recovery through rates.[31]

Demand Charges

Further, non-utility EV charging providers must pay electric utilities for the electricity they consume and dispense to customers. Under traditional commercial rates, these providers pay both an energy charge (based on the amount of energy consumed by the EV charging facility during the applicable billing period) and a demand charge (based on the highest usage from the EV charging facility at any given point during the applicable billing period). This challenges the economics of public DC fast charging stations that are used infrequently. At low levels of usage, the bill incurred by an EV charging facility results in demand charges being spread over a low volume of energy sales, whereas charging facilities with higher usage can spread the demand charge over more energy sales and are more likely to generate enough revenues to recover their electricity costs.[32]

Electric Utility Participation in the EV Charging Market

In Florida, electric utilities serve exclusive territories. The PSC regulates all electric utilities with respect to bulk power grid planning, safety, and grid reliability. The PSC regulates the rates and service of public (investor-owned) utilities only; the rates and service of municipal electric utilities and rural electric cooperatives are exempt from PSC regulation.

[24] AFDC, *supra* note 7.
[25] S. 366.94(2), F.S.
[26] Ch. 2020-21, Laws of Fla.
[27] *Id.*
[28] FDOT, *supra* note 10, at p. 17.
[29] *Id.*, at pp. 15-18.
[30] S. 366.94(1), F.S.
[31] FDOT, *supra* note 10, at p. 17.
[32] *Id.*

Under its regulatory authority, the PSC has approved pilot programs and permanent programs under which public utilities may install, own, operate, and maintain EV charging equipment.[33]

- In April 2021, the PSC approved Tampa Electric Company's (TECO) EV charging pilot program, under which TECO will spend up to $2 million to purchase, install, own, and maintain 200 EV charging stations. The pilot program will run for four years after the deployment of charging stations is complete. The PSC authorized TECO to begin recovery of pilot program costs through its rate base.[34]
- In 2019, Florida Power & Light Company (FPL) began a three-year pilot program, known as EVolution, which targeted the installation of 1,000 EV charging ports. In 2020, the PSC approved a new tariff for FPL with specific EV charging rates for both utility-owned and non-utility owned charging stations. During its 2021 rate case, FPL filed a settlement agreement with parties that contained provisions for expanding FPL's current EV charging pilot program. The PSC approved FPL's expanded EV pilot program as a component of the rate case settlement agreement. The total investment is forecast to be $175 million over the four-year period 2022-2025. Under the terms of the settlement agreement, the PSC authorized FPL to recover the costs associated with these programs through its rate base.[35]
- In 2017, as part of Duke Energy Florida's (DEF) rate case settlement agreement, the PSC approved a five-year EV charging pilot program that allowed DEF to invest $8 million to install and own a minimum of 530 charging ports. In 2021, the PSC approved a new settlement agreement which included a permanent EV charging station program. DEF forecasted the cost at $62.9 million over the four-year period 2022-2025. The PSC authorized DEF to recover reasonable costs of the programs through its rate base.[36]

The EV Master Plan notes that electric utilities, with the lower capital risk provided by rate base regulation, could have an advantage in the EV charging market over non-utility market participants that must raise and expend private capital and compete with other providers for high-usage locations. The Plan also suggests that the ability of utilities to serve high-cost, low-usage locations and provide rapid deployment may be desirable from a public policy perspective.[37]

The EV Master Plan also points out that the rates charged by public utilities for use of their public EV charging equipment must be approved by the PSC based upon the cost of service. The Plan notes, however, that current conditions of the EV charging market may not offer sufficient data to determine a cost-based rate for charging services. The Plan states that reliance on some form of market-based rate derived by comparing rates charged by similarly situated EV charging stations may run the risk of setting rates that do not recover the public utility's cost of installation, thus creating subsidization by utility customers, or, on the other hand, the risk of setting rates that recover more than the cost of providing service.[38]

Absent direction from the Legislature, the PSC will address utility involvement in the EV charging market on a case-by-case basis as utilities propose programs for approval.[39]

Federal Initiatives to Promote EV Charging Equipment

The federal government has set goals to make half of all new vehicles sold in the U.S. in 2030 zero-emissions vehicles and to build a network of 500,000 chargers to help make EVs accessible to all for both local and long-distance trips.[40] Recent federal laws provide grant funding and other incentives to help reach this goal.

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[33] Florida Public Service Commission (FPSC), Agency Analysis of 2023 House Bill 1591 (Mar. 15, 2023), at p.1.
[34] *Id.*
[35] *Id.*
[36] *Id.*
[37] FDOT, *supra* note 10, at p. 18.
[38] *Id.*
[39] *Id.*
[40] U.S. Dept. of Transportation, *Electric Vehicles & Rural Transportation*, https://www.transportation.gov/rural/ev (last visited Mar. 24, 2023).

The 2021 Bipartisan Infrastructure Law, also referred to as the Infrastructure Investment and Jobs Act, provides $7.5 billion in new funding for EV charging stations.[41]

The first $5 billion of this funding is distributed to states by formula over the next 5 years. Under this "formula program," Florida, through FDOT, will receive approximately $198 million. FDOT intends to open a competitive grant process to distribute these funds for the installation and maintenance of EV charging equipment, with an initial phase to begin later this year to fund EV charging equipment gaps along the Interstate highway system and a second phase to cover additional designated transportation corridors.[42] FDOT will not own or operate EV charging equipment.

The U.S. Department of Transportation will administer the remaining $2.5 billion as competitive grants for alternative vehicle fuel infrastructure, including EV charging, hydrogen, propane, and natural gas. Under this competitive grant program, half of the funds are targeted at providing infrastructure along alternative fuel corridors, and the other half is targeted at providing infrastructure for community charging and fueling with a priority on rural areas, low- and moderate-income neighborhoods, and communities with low ratios of private parking or high ratios of multi-unit dwellings. Only states, their political subdivisions, Indian Tribes, and U.S territories may apply for this funding.[43]

Further, the 2022 Inflation Reduction Act extends and expands federal tax credits for EV charging equipment installed at homes and businesses. For residential uses, the tax credit remains at 30% of the costs of the EV charging equipment, up to a maximum of $1,000. For commercial uses, the tax credit is 6% of the costs of the EV charging equipment, with a maximum credit of $100,000 per unit.[44]

Effect of the Bill

The bill prohibits public (investor-owned) utilities from using rate-based investments in EV charging stations. It further requires the PSC to adopt rules for the orderly transition of existing public utility investments in public EV charging stations to structurally separate subsidiaries, without adversely impacting the public utility's ratepayers.

The bill provides that "a public utility may not … limit public utility cost recovery to distribution level system infrastructure that does not include electric vehicle charging stations." Though unclear, this provision, when read in the context of the remainder of the bill, appears to be intended to limit public utility cost recovery to distribution-level system infrastructure that does not include EV charging stations.[45] If this is the correct reading of the bill, this provision may authorize the PSC to consider allowing a public utility to recover, from its general body of ratepayers, make-ready costs for the expansion or upgrade of distribution facilities needed to serve non-utility EV charging stations.

The bill eliminates the requirement that that the Department of Agriculture and Consumer Services adopt rules to provide definitions, methods of sale, labeling requirements, and price-posting requirements for EV charging stations.

The bill requires the PSC to adopt rules that will facilitate the widespread deployment of EV charging stations and infrastructure through consumer choice and competition and the use of reasonable and affordable cost-based electric rates for non-utility providers of public EV charging service. The bill provides that such rules must be competitively neutral and apply to public utilities offering EV charging services to the public.

[41] *Id.* This funding program is commonly referred to as the National Electric Vehicle Infrastructure (NEVI) program.
[42] Florida Department of Transportation, *Electric Vehicle Infrastructure Funding*, https://www.fdot.gov/planning/policy/ev/electric-vehicle-infrastructure-funding (last visited Mar. 27, 2023).
[43] *Id.*
[44] Electrification Coalition, *Inflation Reduction Act Impact on Electric Vehicles*, https://electrificationcoalition.org/work/federal-ev-policy/inflation-reduction-act/ (last visited Mar. 27, 2023).
[45] *See* Drafting Issues or Other Comments.

The bill requires the PSC to propose implementing rules by January 1, 2024, and to adopt final rules by January 1, 2025.

B. SECTION DIRECTORY:

Section 1. Amends s. 366.94, F.S., relating to electric vehicle charging.

Section 2. Provides an effective date.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   None.

2. Expenditures:

   The bill requires agency rulemaking that can be conducted and implemented with existing agency staff.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

   None.

2. Expenditures:

   None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

By requiring divestiture of existing public utility-owned EV charging stations to structurally separate subsidiaries without adversely impacting public utility ratepayers, the bill will require public utilities to expend funds that will likely not be recoverable through rates.

Though unclear, the bill appears to authorize the PSC to consider allowing a public utility to recover, from its ratepayers, make-ready costs for the expansion or upgrade of distribution facilities needed to serve non-utility EV charging stations. If such costs are approved by the PSC, this provision may reduce make-ready costs to new non-utility EV charging stations but shift those costs to utility customers.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

   Not applicable. This bill does not appear to impact county or municipal governments.

2. Other:

   None.

B. RULE-MAKING AUTHORITY:

The bill requires the PSC to propose rules by January 1, 2024, and to adopt final rules by January 1, 2025.

C. DRAFTING ISSUES OR OTHER COMMENTS:

The bill provides that "a public utility may not … limit public utility cost recovery to distribution level system infrastructure that does not include electric vehicle charging stations." As drafted, this provision is unclear and could be interpreted in a manner that is inconsistent with the remainder of the bill by not limiting public utility cost recovery to distribution-level system infrastructure. This provision may need to be clarified.

The PSC notes that, given its existing jurisdictional limits, it does not have clear authority through rulemaking to ensure consumer choice and competition regarding EV charging stations, as required by the bill.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES