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October 2, 2020

Adam J. Teitzman, Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

*RE: 2020 Undocked File, Docket No. 20200000-OT, Request for Comment for EV Workshop / SB 7018*

Dear Mr. Teitzman:

Please find attached, for electronic filing, comments of ChargePoint, Inc in response to the Commissions September 2, 2020, Request for Comment for EV Workshop/SB7018.

If you have any questions or require additional information about this filing, I can be reached at [Justin.Wilson@ChargePoint.com](mailto:Justin.Wilson@ChargePoint.com).

Sincerely,

A handwritten signature in black ink that reads "Justin Wilson". The signature is stylized and cursive.

Justin Wilson  
Director, Public Policy  
ChargePoint, Inc.

## **About ChargePoint**

ChargePoint is one of the world's largest electric vehicle (EV) charging networks, with scalable solutions for charging at home, work, around town, and on the road. ChargePoint's network offers more than 115,000 places to charge, including more than 2,700 spots in Florida, and those numbers continue to grow. With customers that include workplaces, cities, retailers, apartments, hospitals, fleets, and utilities, ChargePoint provides an integrated experience enabling consistent performance, efficiency and reliability at every touchpoint whether one is using a mobile app, plugging into a charger, managing the station or analyzing charging data. On the network, drivers have completed more than 82 million charging sessions, saved upwards of 100 million gallons of fuel, and driven more than 2.4 billion electric miles.

ChargePoint delivers scalable solutions that enable businesses to support more drivers, add the latest software features, and expand their electric vehicle and fleet needs with minimal disruption to overall business. Hardware offerings include Level 2 (L2) and DC fast charging (DCFC) products, and ChargePoint provides a range of options across those charging levels for specific use cases including light and medium duty and transit fleets, multi-unit dwellings, residential (multi-family and single family), destination, workplace, and more. ChargePoint's software and cloud services enable site hosts to manage charging onsite with features like Waitlist, access control, charging analytics, and real-time availability. All products are UL-listed, ENERGY STAR® and CE (EU) certified, and the modular design minimizes downtime and makes maintenance and repair more seamless.

ChargePoint's primary business model consists of selling its smart charging solutions directly to businesses and organizations while offering tools that empower site hosts and station owners to deploy charging designed for their individual application and use case. ChargePoint provides charging network services and data-driven and cloud-enabled capabilities that enable site hosts to better manage their charging assets and optimize services. For example, with those network capabilities, site hosts can view data on charging station utilization, frequency and duration of charging sessions, set access controls to the stations, and set pricing for charging services. These features are designed to maximize utilization and align the EV driver experience with the specific use case associated with the specific site host. Additionally, ChargePoint has designed its network to allow other parties, such as electric utilities, the ability to access charging data and conduct load management to enable efficient EV load integration onto the electric grid.

## **Responses**

- I. Projecting the increase in the use of electric vehicles in this state over the next 20 years and determining how to ensure an adequate supply of reliable electric vehicle charging stations to support and encourage this growth in a manner supporting a competitive market with ample consumer choice.**
  - a. Please provide a ten-year and twenty-year projection for increased EV use in Florida, including your data source for such projections.**

Florida currently has more than 60,000 registered electric vehicles (EV).<sup>1,2</sup> Throughout 2019 and through the first quarter of 2020, EV registrations in Florida grew between 8.6% and 9.9% each quarter. For the annual period ending March

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<sup>1</sup> Vehicle registrations and projected sales percentages in this section include both full electric vehicles (EV) and plug-in electric vehicles (PHEV).

<sup>2</sup> Source: IHS Markit

30, 2020, EV registrations grew 42.3% year over year.<sup>3</sup> This data suggests a consistent and sustained growth in electric vehicle registrations in Florida.

ChargePoint does not have access to Florida specific future sales projections, however, ChargePoint believes that applying national level projects to Florida could serve as a good proxy for the purposes of this proceeding and for general planning in Florida at this time. In the United States, EVs are expected to see an average annual increases in sales over the 10 and 20 year periods beginning in 2021 of 35% and 22% (respectively) for non-commercial passenger EVs, 47% and 27% for commercial light duty EVs, 45% and 27% for commercial medium duty EVs, 40% and 23% for commercial heavy duty EVs, and 22% and 13% for commercial e-busses.<sup>4</sup>

**b. Provide an estimate of the number of charging stations that will be needed to meet the demand presented by these ten and twenty-year projections.**

The US Department of Energy's Vehicle Technologies Office, in collaboration with the National Renewable Energy Laboratory and the California Energy Commission Office, has developed EVI-Pro, "a tool for projecting consumer demand for electric vehicle charging infrastructure."<sup>5</sup> Using this tool, which comes in a "Lite" version available online, stakeholders and regulators can estimate the number of charging stations that will be needed to meet the needs of electric vehicles under a number of assumptions including the number of electric vehicles, percentage of fully electric vehicles versus plug-in hybrid electric vehicles, and percentage of drivers with access to home charging.

While Florida's electric vehicle charging infrastructure is currently slightly ahead of the needs of EV drivers from a statewide perspective, it is clear that additional charging infrastructure will be needed to keep pace with the rapid acceleration in EV sales anticipated. The EVI-Pro Lite tool estimates, with the default assumptions, that to support 60,000 electric vehicles in Florida, the charging infrastructure should include 1,349 workplace Level 2 charging ports, 1,075 public Level 2 charging ports, and 191 Public DCFC ports. While information on workplace level 2 charging ports is not readily available, information on public Level 2 and DCFC stations is tracked by the US Department of Energy's Alternative Fuels Data Center (AFDC) and also incorporated into the EVI Pro-Lite tool.<sup>6</sup> According to the AFDC there are currently 3,478 public Level 2 charging ports and 776 public DCFC charging ports in Florida.

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<sup>3</sup> Source: IHS Markit

<sup>4</sup> Source: BloombergNEF

<sup>5</sup> <https://afdc.energy.gov/evi-pro-lite>

<sup>6</sup> [https://afdc.energy.gov/stations/#!/analyze?fuel=ELEC&ev\\_levels=dc\\_fast](https://afdc.energy.gov/stations/#!/analyze?fuel=ELEC&ev_levels=dc_fast)

Using the projected growth rates above and the default assumptions in the EVI-Pro lite tool, by 2025 Florida would need approximately 8,000 workplace Level 2 charging ports, 5,610 public level 2 charging ports, and 1,019 DCFC charging ports to support the anticipated number of electric vehicles on the road. By 2030, Florida would need approximately 25,000 workplace level 2 charging ports, 16,000 public level 2 charging ports, and 2,280 public DCFC charging ports.

Florida's progress to date installing EV charging infrastructure is impressive, however, with double digit growth rates anticipated in EV sales over the next two decades, it is important that the deployment of EV charging stations keep pace with projected EV adopted to ensure all EV drivers have access to adequate charging infrastructure in the years to come.

**II. Strategies to develop the supply of charging stations, including, but not limited to, methods of building partnerships with local governments, other state and federal entities, electric utilities, the business community, and the public in support of electric vehicle charging stations.**

**a. Provide comment on strategies to develop the supply of charging stations, including methods of building partnerships between charging station installers, governmental entities, electric utilities, the business community, and the public.**

Suppliers of EV charging stations and networks operators are currently building partnerships with governments, private businesses, and the general public to support electric vehicle charging stations. ChargePoint has customers in Florida that include government entities, electric utilities, and private businesses. ChargePoint and other providers of charging station hardware and services have invested significantly in Florida to offer our products to site hosts, which has been a major driver of Florida's current successful deployment of charging infrastructure. ChargePoint encourages the utilities to develop EV charging programs, and the Commission to approve programs, that will expand on these partnerships by reducing the barriers to additional charging station deployment including the cost of make-ready infrastructure and high utility bills stemming from demand charges on low-load factor charging equipment (see responses to questions III (c) below).

Importantly, The Florida Department of Environmental Protection (DEP) is also building partnerships through its responsibilities as the State's beneficiary of the funds related to the Volkswagen Emissions Settlement Program. DEP has recently announced awards to help fund the deployment 74 of DCFCs across 27 separate highway segments in Florida. Awardees include utilities, traditional fueling stations, energy infrastructure developers and charging providers.

**b. Provide examples of strategies adopted or being considered in other states that could be implemented in Florida.**

Please see ChargePoint's response to Question III (c) below.

**III. Identifying the type of regulatory structure necessary for the delivery of electricity to electric vehicles and charging station infrastructure, including competitively neutral policies and the participation of public utilities in the marketplace.**

**a. Provide comment on the regulatory structure necessary for delivery of electricity to EV charging station infrastructure.**

ChargePoint believes that the structure necessary for the delivery of electricity to EV charging stations is largely in place in Florida.

In 2012, the legislature provided two important clarifications related to the regulatory structure of electric vehicle charging stations. First, statute was amended to specify that "[t]he provision of electric vehicle charging to the public by a nonutility is not the retail sale of electricity" and that "the rates, terms, and conditions of electric vehicle charging services by a nonutility are not subject to regulation" under Title 27, Chapter 366. By providing this regulatory certainty for non-utility charging station operators or site hosts, it has given non-regulated entities the opportunity to invest in EV charging stations and provide critical charging services to EV drivers.

Second, the legislature directed the Florida Department of Agriculture and Consumer Services (FDACS) to "adopt rules to provide definitions, methods of sale, labeling requirements, and price-posting requirements for electric vehicle charging stations to allow for consistency for consumers and the industry." This directive to FDACS, once implemented, will provide important consumer protections for EV drivers at public charging stations operated by utilities and non-utilities alike.

Finally, ChargePoint notes that issues can arise when regulated utilities use ratepayer funds to compete with non-utilities offering charging products and services. This component of the regulatory structure for EV charging has been unaddressed to date, however, in Senate Bill 7018 the legislature directed the Commission to identify the regulatory structures necessary for "competitive neutral policies and the participation of public utilities in the marketplace."

**b. Provide comment on what constitutes competitively neutral policies in the electric vehicle charging marketplace.**

In order to develop competitively neutral policies, it is important to first consider how a competitive market for EV charging services works in practice.

In the competitive marketplace for EV charging services, site hosts select the technologies they prefer in an open market, invest their own capital, seek any

incentives available through public agencies or utilities, and, in the case of commercial stations, offer competitive charging services to attract drivers and recoup necessary expenses. For their part, charging hardware, software, and service providers innovate new hardware, software, and service offerings to enable site hosts to choose the products and services that will best meet their needs. These providers compete to offer site hosts the best products to meet their needs at reasonable cost. In competitive markets, utilities can support site hosts and charging hardware, software, and service providers by developing programs that make it cheaper and easier for site hosts to install charging equipment and provide charging services and by utilities encouraging competition in the market, charging providers will develop innovative hardware, software, and services solutions to provide to site hosts.

ChargePoint offers the following principles which should guide the development of competitively neutral policies and any approval for utility programs.

- Site Hosts Choice in Products: Because site hosts may choose to have charging equipment installed on their property for a variety of reasons, it is important to give site hosts choices in the charging equipment and charging network utilized on their property. For example, a restaurant along a highly traveled corridor could install charging stations to attract EV drivers for the purpose of increasing food sales or a local business district may provide free charging to encourage drivers to spend more time shopping at nearby businesses. Allowing site hosts the ability to choose equipment and network services that best meet their needs and will help them attract EV drivers is critical to the long-term success of providing robust charging infrastructure in the state.
- Site Hosts Choice in Pricing: The pricing of EV charging services should reflect the site host's goals for providing the charging services, as well as, any other core business or organizational goals that could be impacted from offering charging services. Traditional fueling companies may seek to compete only on price and amenities available during charging sessions, retailers may seek to offer charging customers a consistent experience across several cities or states, or a grocer could seek to incorporate EV charging into a rewards program; in all of these examples it is important to allow the site host to be the utility customer of record and price the charging services in a competitive manner that advances the core organization or business goals.
- Approved Utility Programs to Support Site Hosts: Utilities have an important role to support transportation electrification and ensure competitively neutral policies in the electric vehicle charging marketplace. ChargePoint believes the Commission should encourage utilities to bring EV charging programs to the Commission

for approval prior to implementation to ensure that programs are designed in a competitively neutral way. By bringing programs to the Commission prior to implementation, site hosts and companies who provide EV charging hardware and services will be able to provide important input on how proposals could impact competition in the marketplace. Additionally, Utilities will be able to ensure that their programs, if approved by the Commission, do not run afoul of Commission policies related to competition neutrality.

**c. Provide comment on the participation of public utilities in the electric vehicle charging marketplace.**

How utilities participate in the electric vehicle charging marketplace is inextricably linked to policies around competition and customer choice. ChargePoint believes the primary role of the utility in the electric vehicle charging marketplace is twofold.

First, it is important that utilities plan for and provide reliable electric service to electric vehicle charging equipment. As electric vehicle adoption grows, utilities will need to incorporate this growth into their long-range plans for generation, transmission, and distribution. Ensure all infrastructure is sized appropriately for existing and anticipated load growth due to vehicle electrification is critical.

Second, utilities should encourage non-utilities to host electric vehicle charging stations and provide support to those non-utilities through approved programs and policies. ChargePoint encourages the development of programs and policies in three primary areas that support the competitive marketplace for EV charging.

- Make-Ready Infrastructure: Make-ready infrastructure includes all the electrical and construction work necessary on both the utility's side of the electric meter and the customer's side of the electric meter to make a site ready to connect EV charging equipment. The cost of the make-ready infrastructure can be a significant amount of the total cost of installing EV charging equipment. Utilities can help the make-ready costs to site host either through providing rebates to cover all or a portion of the cost of make ready infrastructure or could directly install, own and operative the make-ready infrastructure on behalf of the site host.
- Smart Charger Incentives: Smart or networked charging equipment has the ability to connect to the internet and an EV network that enables the management of the EV charging station. As electric vehicle adoption increases, utilities may seek to offer additional programs or incentives for EV drivers and charging station site hosts that leverage the capability of smart chargers. Encouraging the

installation of smart chargers is a way to ensure site hosts will be able to participate in such programs in the future. Additionally, the data that smart chargers can capture greatly exceeds non-networked charging stations. Incentivizing smart charger deployment in Florida will ensure that EV can be used in programs that provide demand response, load shifting, and other services that will benefit the grid and all utility customers.

- Rates: Utilities should develop rate structures that take into consideration some of the unique operational characteristics of electric vehicle charging equipment. Rates should be developed that: 1) address low load factors associated with many electric vehicle charging use cases including public DC fast charging and fleets; 2) encourage charging, when possible, during off-peak times; and 3) utilize smart charging capabilities to shift load or provide demand response services.
- Utility Ownership of Charging Stations: Utility ownership of charging stations may be appropriate in certain instances. In these instances, the Commission should ensure that charging stations deployed by utilities provide site hosts with choices in products and pricing to ensure stations are deployed in a competitively neutral manner.

**d. Provide examples of regulatory structures adopted, or being considered, in other states regarding electricity supply to EV charging station infrastructure, including examples of competitively neutral policies and the participation of public utilities in the marketplace, that could be implemented in Florida.**

Several states have adopted regulatory structures that provide for competitive neutrality and the participation of public utilities in the marketplace.

Both Colorado and New Mexico passed legislation in 2019 that directed regulated utilities to file transportation electrification plans at their respective regulatory Commissions. The legislation passed in those states included criteria by which the commission should evaluate those plans which included language related to increasing customer choices, allowing for private capital investment, and stimulating innovation and competition.<sup>7,8</sup> Similar language has been included in legislation passed earlier in Oregon, Utah, and California.<sup>9</sup>

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<sup>7</sup>New Mexico House Bill 521 (2019) requires the Public Regulatory Commission to consider whether utility investments, incentives, programs, and expenditures are “reasonably expected to support increased consumer choices in electric vehicle charging and related infrastructure and services; allow for private capital investments...”

<sup>8</sup> Colorado Senate Bill 77 (2019) requires the Public Utilities Commission to consider whether the proposed investments and other expenditures are: “reasonably expected to stimulate innovation, competition, and increased consumer choices in electric vehicle charging and related infrastructure and services; attract private capital investments...”

<sup>9</sup> Oregon SB 1547 (2016), California SB 350 (2015), Utah SB 115 (2016)



In other states, legislation has not been needed to establish a framework for utilities. In Arizona, the Arizona Corporation Commission undertook a 9-month process to develop a Policy Statement and an Implementation Plan related to electric vehicles and electric vehicle infrastructure. The Implementation Plan was designed “to provide guidelines to Public Service Corporations regulated by the Commission on how to best implement the Policy [Statement]”.<sup>10</sup> The Implementation Plan outlines best practices that include permitting site hosts “to choose the electric vehicle infrastructure equipment, software, and services that are utilized on their property”. Additionally, the Implementation Plan requires that if utilities provide “turn-key EV charging stations for end users, it must be done in a manner that supports a competitive marketplace. Site host must have the option to choose from a qualified vendor and product list which chargers they want installed.”

In Maryland, the Commission led a process called “Transforming Maryland’s Electric Grid” (PC 44) which led to a framework for utilities to develop a portfolio of EV charging programs and rate design, which have since been approved and begun.<sup>11</sup>

In July 2020, the New York Public Service Commission approved an “EV-Make Ready Program” directing all state utilities to establish make ready programs totaling \$700 million. This framework includes a requirement that a portion of this funding be dedicated to disadvantaged communities.

Additional or expanded frameworks for utility role have been recently approved or are currently under consideration in California (Transportation Electrification Framework or “TEF”), Oklahoma, Texas, Michigan, New Hampshire, New Jersey, Nevada, Minnesota, and Connecticut.

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<sup>10</sup> Arizona Corporation Commission Decision No. 77289.

<sup>11</sup> <https://www.psc.state.md.us/transforming-marylands-electric-grid-pc44/>