

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF DUKE ENERGY INDIANA,)
LLC PURSUANT TO IND. CODE §§ 8-1-2-)
42.7 AND 8-1-2-61, FOR (1) AUTHORITY)
TO MODIFY ITS RATES AND CHARGES)
FOR ELECTRIC UTILITY SERVICE)
THROUGH A STEP-IN OF NEW RATES)
AND CHARGES USING A FORECASTED)
TEST PERIOD; (2) APPROVAL OF NEW)
SCHEDULES OF RATES AND CHARGES,)
GENERAL RULES AND REGULATIONS,)
AND RIDERS; (3) APPROVAL OF A)
FEDERAL MANDATE CERTIFICATE)
UNDER IND. CODE § 8-1-8.4-1; (4))
APPROVAL OF REVISED ELECTRIC)
DEPRECIATION RATES APPLICABLE)
TO ITS ELECTRIC PLANT IN SERVICE;)
(5) APPROVAL OF NECESSARY AND)
APPROPRIATE ACCOUNTING)
DEFERRAL RELIEF; AND (6))
APPROVAL OF A REVENUE)
DECOUPLING MECHANISM FOR)
CERTAIN CUSTOMER CLASSES)

FILED
October 30, 2019
INDIANA UTILITY
REGULATORY COMMISSION

CAUSE NO. 45253

VERIFIED DIRECT TESTIMONY AND ATTACHMENTS

OF

ANNE T. SMART

ON BEHALF OF

CHARGEPOINT, INC.

CHARGEPOINT, INC.'S EXHIBIT 1

I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

Q: Please state your name and business address.

A: My name is Anne T. Smart. My business address is 254 E. Hacienda Ave.,
Campbell, CA 95008.

Q: Please describe your educational background and professional experience.

A: My educational background includes a Bachelor of Arts in Public Administration
and a Bachelor of Philosophy in Environmental Studies from Miami University in
Oxford, Ohio, and a Master of Energy and Environmental Policy from the
University of Delaware in Newark, Delaware. I have been an employee of
ChargePoint for five years, formally in the role of Director of Government
Relations and Regulatory Affairs, and now as Vice President of Public Policy for
the past two years. Prior to ChargePoint, I was the Executive Director of The
Alliance for Solar Choice (TASC), a rooftop solar advocacy organization founded
by SolarCity and Sunrun. I have also been the Director of Energy for the Silicon
Valley Leadership Group, a business trade association of Silicon Valley
employers, leading federal and California legislative and regulatory policy on
energy issues.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of ChargePoint, Inc. ("ChargePoint"), where, as
previously mentioned, I serve as Vice President of Public Policy.

Q: What attachments are you sponsoring?

1 A: I sponsor the following attachments:

2	<u>Attachment ATS-1</u>	Screenshot from Alliance of Automobile Manufacturers
3		Association demonstrating increased EV sales in Indiana
4	<u>Attachment ATS-2</u>	Department of Energy Alternative Fuels Data Center List
5		of Indiana Charging Stations
6	<u>Attachment ATS-3</u>	Response to ChargePoint Interrogatory 2.3
7	<u>Attachment ATS-4</u>	Response to ChargePoint Interrogatory 2.12
8	<u>Attachment ATS-5</u>	Response to ChargePoint Request for Admission 2.6
9	<u>Attachment ATS-6</u>	Response to ChargePoint Interrogatory 2.11
10	<u>Attachment ATS-7</u>	Response to ChargePoint Interrogatory 2.13
11	<u>Attachment ATS-8</u>	AEP Ohio Vendor List for EV Charging Station
12		Infrastructure
13	<u>Attachment ATS-9</u>	States Allowing kWh Charging by Non-Utilities

14
15 **Q: What is the purpose of your testimony in this proceeding?**

16 A: My testimony addresses the proposal from Duke Energy Indiana, LLC ("Duke
17 Energy" or the "Company"), as presented by witness Reynolds, to install electric
18 vehicle ("EV") charging infrastructure subsidized by Duke Energy's ratepayers. I
19 make recommendations to the Commission that will improve the success of EV
20 charging infrastructure deployment in Duke Energy's service territory based on
21 ChargePoint's substantial experience in other states.

22 **Q: How is the remainder of your testimony organized?**

23 A: I have divided my testimony into four sections. The balance of Section I
24 introduces ChargePoint to the Commission, provides background information
25 about EV charging deployment in other states, and summarizes ChargePoint's
26 recommendations on EV infrastructure that are designed to make EV deployment
27 in Indiana generally, and Duke Energy's service area specifically, as efficient as
28 possible.

1 Section II summarizes the current market for EV charging infrastructure in
2 Indiana.

3 Section III explains Duke Energy's ratepayer-funded proposal for EV charging
4 infrastructure and details best practices of utility investment in EV charging
5 infrastructure with a focus on the foundation for a competitive market for EV
6 charging equipment in Duke Energy's service area. Section III further explores
7 how elements of Duke Energy's proposed deployment of EV infrastructure
8 contrast with best practices for utility investment observed in other programs
9 around the country. This demonstrates that Duke Energy's proposal, while well-
10 intentioned, will not foster and extend the existing competitive market for EV
11 charging infrastructure throughout Duke Energy's service area and perhaps in
12 other areas of Indiana.

13 Finally, Section IV offers the Commission an alternative program design that
14 fosters competitive market offerings and innovation, while enabling utility
15 investment in the deployment of EV charging infrastructure.

16 **Q: Please describe ChargePoint's expertise in the EV charging market.**

17 A: ChargePoint has established itself as a leading manufacturer of EV charging
18 equipment and provider of network, maintenance and associated services.
19 ChargePoint designs, develops, and deploys residential and commercial AC Level
20 2 ("L2") and DC fast charging ("DCFC") stations, software applications, data
21 analytics, and related customer and driver services aimed at creating a robust,
22 scalable, and grid-friendly EV charging ecosystem. Using ChargePoint products

1 and services, our customers operate more than 100,000 Level 2 and DC fast
2 charging spots, including more than 130 publicly available workplace,
3 commercial, and private residential charging spots in Indiana.

4 **Q: Please summarize your recommendations to the Commission.**

5 A: I recommend that the Commission direct Duke Energy to modify its proposal to
6 (1) enable site hosts of Company-facilitated stations to choose charging
7 equipment and networks, and (2) enable site hosts of Company-facilitated stations
8 to control the operation of charging stations on their properties. Those conditions
9 motivate development of a smart charging network in a way that will stimulate
10 innovation, competition, and customer choice in the market for EV charging
11 equipment.

12 **Q: What is ChargePoint's business model?**

13 A: ChargePoint engineers, manufactures, and sells the hardware, cloud-based
14 network, and associated services necessary for EV charging station owners to
15 effectively and efficiently provide charging services to drivers that utilize their
16 properties. In almost every case, ChargePoint does not own or operate the
17 equipment, but provides a portfolio of products and services to individuals and
18 site hosts.

19 ChargePoint sells residential charging solutions directly to individuals and EV
20 drivers, and sells commercial charging solutions to a "site host," such as an
21 employer, business, city, fleet operator, or multi-unit dwelling. In addition,

1 ChargePoint sells “network services” to commercial site hosts to manage their
2 charging infrastructure using cloud-based software tools, as well as station
3 monitoring and preventative maintenance and related customer services. The
4 commercial site host operates the station, including granting access to EV drivers
5 and setting the price that EV drivers pay to use the charging service on their
6 property. ChargePoint does not set the pricing to drivers at stations that are owned
7 and operated by site hosts. Finally, ChargePoint conveys all revenue collected
8 from drivers for EV charging services, other than a small transaction fee, to the
9 site host.

10 **Q: What are the products and services that ChargePoint offers to the market?**

11 A: ChargePoint offers a complete line of L2 and DCFC products and services,
12 including the CT4000 family of Level 2 charging stations for public and
13 workplace charging, ChargePoint Home for single-family residential use,
14 ChargePoint Multi-Family for commercial multi-unit dwellings, ChargePoint
15 Fleet and 62.5 kilowatt (“kW”) DC Fast Charging stations for rapid-charging
16 needs, including medium and heavy-duty electrification.

17 For drivers, ChargePoint provides a unified mobile and web application for all
18 aspects of public, workplace, and home EV charging. ChargePoint drivers access
19 payment and support services information in real-time through screens at the
20 charging stations, mobile app, email and text notifications, or the ChargePoint
21 website. ChargePoint also provides services to drivers, free of charge, which

1 allow them to easily find and access public EV charging infrastructure provided
2 by station owners through a mobile app, in-vehicle navigation, and our website.

3 For site hosts, ChargePoint provides subscriptions to our cloud-based platform.
4 This provides the station site host with everything needed to manage EV charging
5 operations, including access control, billing and payment processing, driver
6 queuing and advanced load management, and online management tools for
7 charging utilization data collection and analysis. We connect stations to the
8 ChargePoint cloud over a secure, payment card industry ("PCI") compliant,
9 cellular data network allowing station owners to manage all their charging
10 operations from a single dashboard.

11 Maintenance and customer service are high priorities for our company.
12 ChargePoint offers a comprehensive set of support services for both EV drivers
13 and station hosts, including: a 24/7/365 hotline for drivers, the industry's first
14 parts and on-site labor warranty, site qualification, installation and station
15 validation services and help line for site host specific questions.

16 **II. EV MARKET OVERVIEW**

17 **Q: How many EVs are registered in the State of Indiana?**

18 A: According to IHS/Polk market data, as of the second quarter of 2019,
19 approximately 8,246 EVs are registered in Indiana.

20 **Q: How is the Indiana market for EVs growing?**

1 A: According to IHS/Polk market data, the year-over-year growth rate for electric
2 vehicle registrations in Indiana is 47%, which exceeds the current national
3 average of 42%. In addition, according to the Alliance of Automobile
4 Manufacturers, from June 2018 to June 2019 monthly sales of electric vehicles
5 increased by 38%. (Attachment ATS-1).¹

6 **Q: How many public EV charging stations are operating in Indiana?**

7 A: According to the Department of Energy's Alternative Fuels Data Center
8 ("AFDC"), across Indiana, there are 324 public charging ports utilizing a standard
9 connector that enable charging of any model of EV. Each port is capable of
10 charging a single vehicle, and some stations have two ports. Of those 324 ports,
11 there are 38 DC fast ports and 286 Level 2 charging ports. (Attachment ATS-2).

12 **Q: Are public charging stations representative of the whole market of charging**
13 **available in Indiana?**

14 A: No. There are many more private charging ports that are not included in AFDC's
15 total figure, which may have limited access to the public or have exclusive use
16 permissions, such as a fleet charging station. I have also omitted Tesla charging
17 stations, which do not utilize a standard connector, but provide charging for Tesla
18 drivers.

19 **Q: How many networks of charging stations are available to all EV drivers in**
20 **Indiana's market?**

¹ Screenshot from <https://autoalliance.org/energy-environment/advanced-technology-vehicle-sales-dashboard/>

1 A: According to AFDC, there are seven charging networks utilizing standard
2 connectors operating in Indiana: ChargePoint, Greenlots, SemaCharge, EV
3 Connect, Electrify America, Blink, and EVgo.

4 **Q: Would you describe this market for EV charging infrastructure in Indiana as**
5 **competitive?**

6 A: Yes. In the current market for EV charging infrastructure, charging station
7 providers approach site hosts with their unique products and features, competing
8 with other providers to sell or install charging equipment. Site hosts have an open
9 choice of several options for charging equipment and networks from different
10 providers with different business models. Site hosts also compete for EV drivers
11 in providing charging services and set their pricing and access features in ways
12 that will attract drivers to their sites.

13 **Q: For public charging stations in Indiana, who currently pays for installing,**
14 **operating, and maintaining charging infrastructure at a site host's property?**

15 A: The vast majority of public charging stations in Indiana have been the result of
16 private investment, in whole or in part.

17 **Q: Is there currently active private investment in charging stations in Indiana?**

18 A: Absolutely. ChargePoint continues to market and sell charging stations to a
19 variety of site hosts in Indiana, who own and operate those charging stations on
20 their properties.

1 **Q: Why do charging station site hosts invest in EV charging solutions available**
2 **in the competitive market?**

3 A: EV charging station site hosts choose to invest in EV charging for a wide range of
4 reasons, and each site host has its own business model for providing charging
5 services. For many retail establishments, charging is a way to attract drivers to a
6 place of business and allow drivers to charge as they shop. For employers, it may
7 be a low-cost benefit provided to attract employees. Apartment building owners
8 may provide charging as an amenity and will typically charge for the service as
9 they do for a coin-operated laundry. Cities and counties may deploy charging
10 stations to encourage low-emission driving and support local air quality, and they
11 may charge cost-recovery fees in order to avoid giving away charging services at
12 taxpayer expense.

13 **Q: Would you describe the EV charging market as a “market failure?”**

14 A: No. This is an emerging market defined by natural demand and private investment
15 across a diversity of communities. As EV adoption continues to grow and become
16 more widespread in Indiana, we will continue to see greater and increasing
17 demand for EV charging solutions in new areas.

18 **Q: Can incentives for EV charging stations help to accelerate competitive**
19 **market activities?**

20 A: Yes. Federal, state, local, and utility-funded incentives have been highly effective
21 in increasing site host interest in investment charging infrastructure, and thereby

1 increase competition among multiple providers of EV charging equipment and
2 services. For example, Northern Indiana Public Service Company's IN-Charge
3 program provided incentives for public charging stations throughout the utility's
4 service territory. According to South Shore Clean Cities, that incentive program
5 supported deployment of 159 public charging stations at 60 locations throughout
6 Northern Indiana.²

7 **III. SUMMARY OF DUKE ENERGY'S EV PROGRAM PROPOSAL AND**
8 **CHARGEPOINT'S CONCERNS RELATED THERETO**

9 **Summary of Duke Energy's Proposal**

10 **Q: What does Duke Energy propose to do in the EV charging station market?**

11 A: Duke Energy's case-in-chief identifies an Electric Transportation Pilot Program
12 Proposal detailing the deployment of various transportation electrification
13 technologies, including the installation of charging stations to support EVs.
14 Witness Reynolds describes five distinct programs as part of this proposal:

- 15 • **Direct Current Fast Charge Program** – Duke Energy plans to install,
16 own, and operate a total of 60 DC fast charging ports at 30 locations.
17 According to witness Reynold's response to ChargePoint Interrogatory 2.3
18 (Attachment ATS-3), Duke Energy will identify general locations that it
19 alone determines are best for DC fast charger investment.

² <https://southshorecleancities.org/nipsco-in-charge-program/>

- 1 • **Electric School Bus Program** – Duke Energy plans to fund up to
2 \$215,000 per EV bus for up to 20 buses, and install and own associated
3 charging equipment for those buses.
- 4 • **Electric Transit Bus Program** – Duke Energy plans to fund installation
5 of charging equipment for EV transit buses purchased in the preceding 24
6 months.
- 7 • **Residential EV Charging Rebate Program** – Duke Energy plans to
8 provide \$500 rebates toward the purchase of Level 2 EV charging
9 equipment for up to 500 residential customers.
- 10 • **Commercial EV Charging Rebate Program** – Duke Energy plans to
11 provide up to 1,000 total \$2,500 rebates toward the purchase of Level 2
12 EV charging equipment for any public or private entity, government,
13 workplace fleet operators.

14 **Q: What appear to be the goals of Duke Energy's proposals?**

15 A: The Company seeks learnings from the data collected from the smart charging
16 stations deployed under this program, as well as observations on the distribution
17 grid. Those learnings include, but are not limited to, system impacts, utilization of
18 charging stations, charging station reliability, and the effects of charging multiple
19 types of EVs. (Petitioner's Exhibit 31, at 7:11 to 8:1).

20 **Q: Does ChargePoint support Duke Energy's goals?**

21 A: Yes. We believe, however, that these goals and learnings could be better
22 accomplished utilizing different models of utility investment that do not involve

1 the utility operating EV charging infrastructure. In addition, we believe that utility
2 operation of charging infrastructure has a detrimental impact to the competitive
3 market that can be avoided through implementation of alternative program
4 designs.

5 **Concerns with Duke Energy's Proposal**

6 **Q: From a program design perspective, what are your concerns with Duke**
7 **Energy's program proposals for the Indiana market?**

8 A: Many elements of the programs pose significant risk to the existing competitive
9 market for EV charging in Indiana and could hamper market development by
10 chilling additional investment.

11 **Q: Please expand on those concerns.**

12 A: Overall, under many of those programs, the Company fails to align with current
13 competitive market conditions where customers select technologies they prefer in
14 an open market, invest their own capital, and offer competitive charging services
15 to attract drivers. Instead, in some of the offerings, the Company selects the
16 technologies it prefers, and the Company operates charging services in a non-
17 competitive manner that undermines existing deployments.

18 In the case of the DC Fast Charging Program, the Company seeks to own and
19 operate a single dominant, fully subsidized charging network, which would
20 capture prime locations for charging infrastructure and chill private investment in
21 competing networks and hardware. Competitive providers already occupy the EV

1 charging space in Indiana, and the monopoly utility should not be positioned to
2 invest ratepayer funding to compete with those providers.

3 **Q: What utility investments in EV charging infrastructure further market**
4 **development and avoid your concerns?**

5 A: Utilities are well-situated to assist with the deployment of EV charging
6 equipment. ChargePoint believes Commissions should authorize strategic, risk-
7 averse activities and cost-effective, ratepayer-funded infrastructure investments
8 that will help accelerate expansion of EV charging and EV adoption. Critically,
9 we believe that there are three main components of effective utility investment in
10 EV charging infrastructure to support a long-term, sustainable competitive
11 market:

- 12 1. The ability for site hosts to choose among multiple, qualified vendors of
13 charging equipment and networks.
- 14 2. Site host operational control of EV charging infrastructure located on their
15 properties, including controls over pricing of the charging service provided to
16 drivers.
- 17 3. Private investment in EV charging infrastructure in the form of shared cost
18 with incentives or supplemented project funding.

19 **Q: Why are these three components important to designing an effective utility**
20 **investment in EV charging infrastructure?**

1 A: All three components relate to core outcomes that will drive the competitive
2 market for the long-term: (1) the variety of technology choices available to the
3 market, (2) the degree to which site hosts can make choices about how to operate
4 the charging stations, and (3) the impact of spurring private investment alongside
5 the deployment.

6 **Q: What experience do other jurisdictions have in EV charging that involve site**
7 **host choice, site host control, and site host private investment?**

8 A: Many utility programs across the country, including approved programs in
9 California³, Nevada⁴, Utah⁵, Ohio⁶, Massachusetts⁷, New York⁸, Rhode Island⁹,

³ See California Public Utilities Commission. Application 17-01-020. "Transportation Electrification Proposals Pursuant to SB 350." 2018. (available at <http://www.cpuc.ca.gov/sb350te/>).

⁴ See Public Utilities Commission of Nevada. Docket No. 18-02002. "Joint Application of Nevada Power Company d/b/a NV Energy [...] Electric Vehicle Infrastructure Demonstration Program for Program Year 2018-2019." June 27, 2018. (available at http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2015_THRU_PRESENT/2018-2/31126.pdf).

⁵ See Public Service Commission of Utah. Docket No. 16-035-36. "In the Matter of the Application of Rocky Mountain Power to Implement Programs Authorized by the Sustainable Transportation and Energy Act." June 28, 2017. (available at <https://pscdocs.utah.gov/electric/16docs/1603536/2949541603536ptrao6-28-2017.pdf>).

⁶ See Public Utilities Commission of Ohio. Docket No. 16-1852-EL-SSO. "In The Matter of the Application of the Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143." April 25, 2018. (available at <http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=1a7d9c25-92bc-42e4-896d-c888c1a015ac>).

⁷ See Massachusetts Department of Public Utilities. Docket 17-05. "Order Establishing Eversource's Revenue Requirement." November 30, 2017. (available at <https://eeaonline.eea.state.ma.us/EEA/FileService/V1.4.0/FileService.Api/file/FileRoom/dehehcji>).

⁸ See New York Public Service Commission. Matter No. 17-00887. "Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service." (available at <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=17-E-0238>).

⁹ See Rhode Island Public Utilities Commission. Docket No. 4770. "The Narragansett Electric Co. d/b/a National Grid - Application for Approval of a Change in Electric and Gas Base Distribution Rates." (available at <http://www.ripuc.org/eventsactions/docket/4770page.html>).

1 Maryland¹⁰, Michigan¹¹, Pennsylvania¹², Missouri¹³, and in programs proposed in
2 Washington¹⁴ incorporate these elements.

3 ChargePoint does not intend to recite orders from each footnoted jurisdiction to
4 demonstrate its point. Rather, ChargePoint cites to the January 9, 2019 order of
5 the Michigan Public Service Commission in the proceeding linked in footnote 9
6 acknowledging the position of the utility in that case (Consumers Energy
7 Company) that, “Consumers’ proposed [EV] program will not involve utility
8 ownership of charging infrastructure, but will incentivize the reduction of these
9 barriers through rebates and customer education. ... Consumers argued that it
10 seeks to avoid expensive, reactive adjustments to a growing EV market that
11 would involve capital intensive solutions.” (*In the Matter of the Application of*
12 *Consumers Energy Company*, 2019 WL 237014, at 3 (Mich. P.S.C. Jan. 9, 2019)).

¹⁰ See Maryland Public Service Commission. Case No. 9478. “In the Matter of the Petition of the Electric Vehicle Workgroup for Implementation of a Statewide Electric Vehicle Portfolio.” (available at <https://www.psc.state.md.us/search-results/?keyword=9478&x.x=16&x.y=13&search=all&search=case>).

¹¹ See Michigan Public Service Commission. Case No. U-20134. “In the matter of the application of Consumers Energy Company for authority to increase its rates for the generation and distribution of electricity and for other relief.” (available at <https://mi-psc.force.com/s/case/500t0000009fPPSAA2/in-the-matter-of-the-application-of-consumers-energy-company-for-authority-to-increase-its-rates-for-the-generation-and-distribution-of-electricity-and-for-other-relief>).

¹² See Pennsylvania Public Utilities Commission. Docket Number R-2018-3000124. “Pa. PUC v. Duquesne Light Company.” (available at <http://www.puc.pa.gov/pdocs/1586084.pdf>).

¹³ See Missouri Public Service Commission. Case No. ET-2018-0132. “In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of Efficient Electrification Program. (available at https://www.efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=ET-2018-0132&attach_id=2018012294).

¹⁴ See Washington Utilities and Transportation Commission. Docket No. UE-180877. Tariff Revision – Puget Sound Energy. (available at <https://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=180877>).

Q: Does the Company's proposal include site host choice, site host control, and site host private investment?

A: These components are present in some offerings, but not others. Table ATS-1 below clarifies this point in visual format:

Table ATS-1			
Program	<i>Site Host Choice</i>	<i>Site Host Control</i>	<i>Site Host Private Investment</i>
DC Fast Charging Program			
Electric School Bus Program		✓	
Electric Transit Bus Program			
Residential EV Charging Rebate Program		✓	✓
Commercial EV Charging Rebate Program	✓	✓	✓

Importance of Site Host Choice

Q: Table ATS-1 identifies that four out of the five offerings do not maintain site host choice for EV charging equipment and networks. Please explain the differences between these programs.

A: In response to ChargePoint Interrogatory 2.12 (Attachment ATS-4), witness Reynolds states that in the Commercial Level 2 Program, "Customer may choose any hardware or network." For the Residential Level 2, Transit Bus, and Electric School Bus Programs, however, witness Reynolds clarifies that, "Customer may choose from a list of approved hardware providers compatible with Company-selected network." Therefore, under those programs, a site host would not select the network, the utility would, and hardware selection would be limited to hardware vendors capable of operating with the utility's selected network.

1 Furthermore, under the DC Fast Charging Program, “Hardware and network
2 provider will be selected by the Company.”

3 **Q: Why is network choice important?**

4 A: In the current EV charging market, there are charging hardware providers and
5 national network providers – similar to mobile phones and cell carriers – and site
6 hosts choose from both hardware and network providers to get the suite of smart
7 features to fit their circumstances. A charging network is a cloud-based platform
8 that connects to charging hardware, collects data on charging sessions, and
9 enables advanced features and controls to manage charging stations. Just like a
10 customer chooses the smart phone that they want *and* chooses the carrier that they
11 want, the choice of both EV charging hardware and network makes for a cohesive
12 customer experience. Notably, in the EV charging market, charging networks
13 provide a vast array of smart features and functions that differ from network to
14 network, making the choice of network provider arguably more consequential to
15 an EV charging customer compared to their choice of hardware provider.

16 **Q: Is there a risk to the competitive market for EV charging for the Company’s**
17 **programs that lack network choice?**

18 A: Absolutely. Without customers’ ability to choose from the full range of solutions
19 that best fit their circumstances and needs that are available in a competitive
20 market, the Company will promote a single network provider over others
21 currently active in the market while failing to properly accommodate for the
22 diverse needs and desires of their own customers. Conversely, accommodating

multiple network choices would increase program participation and provide a more dynamic EV charging marketplace.

Q: Is it possible for these programs to include choice of multiple networks and still achieve the goals of the pilot?

A: Yes. And there are many examples of utility programs in other jurisdictions that have site host choice of both network and hardware that have similar learnings. For example, in approving Consumers Energy's PowerMIDrive EV charging rebate program, which has these elements of site host choice, the Michigan Public Service Commission noted that the program would help the utility to utilize data to better understand impacts to the grid and trends of charging on- and off-peak. (*In the Matter of the Application of Consumers Energy Company*, 2019 WL 237014, at 8-9 (Mich. P.S.C. Jan. 9, 2019)).

Importance of Site Host Control

Q: Table ATS-1 identifies pilot program proposals that do not offer site host control of charging stations located on their properties. Please summarize how the proposed programs treat site host control.

A: The DC Fast Charging Proposal enables the utility to operate and control pricing to EV drivers. Additionally, as part of the EV Transit Bus Program, Witness Reynolds states that the Company will operate EV charging stations (Petitioner's Exhibit 31, at 12:3-7), though it is unclear what that operation entails.

Q: Why is site host control of charging stations located on their properties important?

1 A: As EV charging is a competitive service, the operation and pricing is a direct
2 reflection of a site host's goals for hosting that service: to attract drivers and
3 encourage use of stations in a way that aligns with activities onsite. For example,
4 an EV fleet owner requires operational control to optimize charging, and a DCFC
5 operator requires pricing control to set competitive pricing in a sustainable way
6 that attracts drivers.

7
8 **Pricing Concerns**

9 **Q: Does Duke Energy's proposed pilot enable the Company to set pricing for**
10 **charging services to EV drivers?**

11 A: Yes. Under the Company's Direct Current Fast Charging Program, EV drivers
12 using a utility-owned station would pay a proposed Fast Charge Fee of \$0.205690
13 per kilowatt-hour ("kWh") plus all applicable riders. The Company claims that
14 the fee will align with the statewide average price for fast charging services.
15 (Petitioner's Exhibit 31, at 4:19). In the case that the Company's Fast Charge Fee
16 deviates from the statewide average by more than 20%, the Company will add a
17 market adjustment to bring it into alignment with the statewide average.
18 (Petitioner's Exhibit 31, at 4:21 to 5:2).

19 For the remaining programs, site hosts will control the pricing to drivers visiting
20 charging stations onsite; however, site hosts will pay tariffed rates for electricity
21 they use for charging services.

1 **Q: Is it possible for the Company's DC fast charging stations to undermine**
2 **current deployments of DC fast chargers that are operated by non-utilities?**

3 A: Yes. Witness Reynolds admits in ChargePoint Request for Admission 2.6
4 (Attachment ATS-5) that it is possible for Duke Energy-operated charging
5 stations to have a price to EV drivers that is 20% less than what other charging
6 stations in the market offer.

7 **Q: What would be the impact of Duke Energy's Fast Charge Fee pricing policy**
8 **for EV charging?**

9 A: I believe it would decrease utilization of competitively operated charging stations,
10 potentially putting those stations into unsustainable economic risk. The most
11 common fee mechanisms for EV charging by non-utilities are by time or by flat
12 fee.

13
14 **Utility Ownership of Charging Stations**

15 **Q: What concerns do you have about the utilization and economic viability risks**
16 **undertaken by the Company for its charging stations?**

17 A: As the DC fast charging stations deployed under this program are fully subsidized
18 by ratepayers, the Company would not be subject to any market pressures
19 affecting the viability of the deployment, operating unlike any other entity in the
20 current market. Under this program, the risks that private investors typically bear
21 in the current market for charging services would be borne by ratepayers, who

1 risk an underutilized and ineffective deployment. In fact, in response to
2 ChargePoint Interrogatory 2.11 (Attachment ATS-6), witness Reynolds states that
3 Duke Energy will install DC fast charging "...in locations that are not heavily
4 utilized (and thus not profitable)...," which raises significant questions as to why
5 this would be an appropriate or useful expenditure of ratepayer funds.

6 **Q: What is ChargePoint's position on Duke Energy's position that it should own**
7 **and operate charging stations to ensure they are maintained and**
8 **operational?**

9 A: ChargePoint believes there may be limited circumstances where utility ownership
10 of charging stations may be appropriate, so long as the competitive market best
11 practices of site host choice and site host control are maintained. ChargePoint
12 disagrees with the pilot proposal that the charging stations should be Company-
13 owned and operated on the basis of operationality. Several programs around the
14 country involve uptime guarantees and stipulate maintenance as conditions for
15 receiving incentives or installing charging stations onsite. In fact, witness
16 Reynolds states that Duke Energy incorporates this condition for the EV School
17 Bus Program: "Duke Energy Indiana will install and retain ownership of the EV
18 Supply Equipment while the participating School Corporation will be responsible
19 for proper operation and maintenance of EV Supply Equipment according to
20 manufacturer guidelines." (Petitioner's Exhibit 31, at 8:19-22).

21 **Q: How could this same condition be applied to all other programs under this**
22 **pilot?**

1 A: In the case that a site host is not able to maintain EV charging on its property, the
2 financial benefit of the program would be rescinded from the site host.

3 **Q: What is your experience with site hosts owning, operating, and maintaining**
4 **EV charging equipment?**

5 A: It is common and is present in the Indiana market for both Level 2 and DC fast
6 charging equipment. No matter which program or segment of the market served,
7 site hosts can own, operate, and maintain EV charging equipment and do so in a
8 manner that ensure uptime and reliability of the charging network.

9 **Q: With services available in the competitive EV charging market, does Duke**
10 **Energy have to own and operate charging equipment to access data from**
11 **smart charging stations?**

12 A: No. ChargePoint currently offers networked stations that give utilities access to
13 critical data without the need for utilities to own stations. ChargePoint and other
14 competitors offer open application program interfaces (“APIs”), which allow for
15 utilities to view and manage data from third-party owned charging stations in their
16 service territories. This arrangement avoids the cost of ratepayer investment in
17 hardware, and additionally avoids costs associated with administration and
18 maintenance of a network, while providing all of the benefits of networked
19 charging to utilities.

Importance of Not Chilling Private Investment in EV Charging

Q: Table AST-1 indicates that site host contribution of private investment is not present in three of the programs, correct?

A: Yes. The DC Fast Charging, EV School Bus, and Transit Bus Programs involve the Company's ratepayers fully subsidizing Company-owned charging equipment without a site host cost contribution. In contrast, the Residential and Commercial Level 2 Programs maintain private investment beyond the costs that rebates cover.

Q: Explain why private investment has been an important part of utility programs in which ChargePoint has participated.

A: ChargePoint has observed that requiring private investment in EV charging infrastructure in conjunction with utility investment motivates site hosts to invest in the EV charging infrastructure that they need, ensures that site hosts are materially invested in the success of the deployment on their properties, and optimizes ratepayer funding.

Q: What does Duke Energy's proposal indicate to you about the importance of site host private investment in charging stations?

A: Underlying Witness Reynolds testimony appears to be a recognition of the importance of private investment. In an explanation as to why the Company chose to pursue a rebate model for the Commercial Level 2 program, which involves site host private investment and operation, witness Reynolds stated in response to ChargePoint Interrogatory 2.13 (Attachment ATS-7): "The Commercial EV

1 Charging Rebate program is designed to support the installation of Level 2 EVSE
2 specifically for fleet charging applications. Because the charging stations will
3 necessarily be required to support the daily operation of these fleet vehicles, *these*
4 *customers have a direct financial interest in ensuring that this infrastructure is*
5 *maintained and operable.* Furthermore, the proposed rebate was sized in order to
6 *ensure that the customer has a financial stake in the installation of the EVSE,*
7 *providing further incentive to ensure the stations remain maintained and*
8 *operable.”* (emphasis added).

9 **Q: Could Duke Energy’s rationale for rebates be applied to the DC Fast**
10 **Charging, Electric School Bus, and Transit Bus programs, which do not**
11 **require site host private investment?**

12 A: Yes. The benefits of site host private investment apply to any segment of the
13 market.

14 **Q: Can you explain what would happen to private investment in the local**
15 **Indiana market if Duke Energy’s ratepayers fully subsidize the cost of**
16 **installing, owning, and operating charging stations?**

17 A: Any charging station vendor that is not selected as the single network vendor of
18 the utility’s choice will have to compete with a cost-free offering from Duke
19 Energy. Under these market conditions, potential site hosts would opt for
20 ratepayer-funded charging infrastructure, rather than invest in a charging station
21 sold competitively at cost. As a result, private investment and sales opportunities

1 would decline, potentially for several years, as the Company selects prime near-
2 term locations and opportunities for deployment.

3 **Q: What other program designs could Duke Energy have considered for this**
4 **deployment?**

5 A: Several options do not involve full ratepayer subsidization of the cost of
6 installing, owning, and operating charging stations. Earlier, I mentioned that
7 rebates could be applied to any segment. In addition, the utility could have
8 pursued a make-ready program. In that investment model, the utility directs
9 investments toward the *installation* of charging hardware, and more specifically,
10 installing and maintaining the supporting electrical infrastructure on the
11 distribution side as well as the customer side of the meter up to the connection
12 point for the charging station. In covering this work, a utility prepares a site for
13 installation of the charging station itself, which is purchased and operated by the
14 site host. Both rebates and make-ready work similarly to reduce total project costs
15 for site hosts' acquisition and ownership of charging infrastructure.

16 **Q: Is it your position that Duke Energy ratepayers could avoid the cost of the**
17 **utility fully subsidizing the operations and maintenance of charging**
18 **infrastructure, and still achieve all of the goals of the program?**

19 A: Yes.

20 **Q: Can you provide an example of a rebate program for DC fast charging that**
21 **has site host choice, site host control, and site host private investment?**

1 A: In April 2018, the Public Utilities Commission of Ohio approved AEP Ohio to
2 implement a rebate program for 375 networked charging stations, including 75
3 DC fast charging stations. That program requires the utility to make eligible
4 equipment and networks from multiple vendors, and enables site hosts to set
5 pricing and operate stations. The rebates were designed to cover 80% of
6 equipment and installation on private properties, up to a cap of \$50,000 per port,
7 requiring at least 20% private investment. That program is currently at its
8 midstream, and there are multiple network vendors approved for that program,
9 including ChargePoint, Greenlots, and EVConnect, who approach site hosts to
10 sell equipment directly. Attachment ATS-8 is AEP Ohio's EV incentive
11 calculator and approved vendor list.

12 **Q: Does AEP Ohio's program utilize rebates to target any specific areas?**

13 A: Yes, at least 10% of DC fast chargers under AEP Ohio's program are set aside for
14 low-income communities.

15 **Q: What is an example of an active make-ready program that has site host
16 choice, site host control, and site host private investment?**

17 A: Southern California Edison's Charge Ready Program is a commission-approved,
18 multi-segment \$22 million pilot in California, designed to facilitate deployment of
19 1,500 Level 2 charging stations. The program is designed to cover the costs of
20 make-ready infrastructure for EV charging stations, allows for site host choice of
21 hardware and networks, and preserves site host control of charging equipment. In

1 the most recent compliance filing, Southern California Edison reported that it had
2 committed 1,321 charging ports.¹⁵

3 **VI. RECOMMENDATIONS FOR A MODIFIED ELECTRIC**
4 **TRANSPORTATION PILOT PROGRAM**

5 **Q: Do you recommend the Commission's approval of Duke Energy's Electric**
6 **Transportation Pilot Program as proposed?**

7 A: No. The current proposal has far-reaching negative impacts on the current market
8 for charging in Indiana and must be amended to ensure consistency with current
9 market dynamics and to foster market-based growth of EV charging stations.

10 **Q: Do you have any recommendations for modifying the Pilot Programs?**

11 A: ChargePoint recommends Commission approve a modified pilot program that (1)
12 supports site host choice of charging equipment and network solutions and (2)
13 supports site host operational control over pricing and access. These are features
14 of the current market that must be replicated in any utility investment in charging
15 infrastructure to avoid negative market impacts.

16 **Q: In order to accommodate those modifications, do you believe that Duke**
17 **Energy must change its ownership model for any of the programs?**

18 A: While I believe that incentive-based programs, like rebate and make-ready
19 programs, could more easily and seamlessly accommodate these modifications, as

¹⁵ https://www.sce.com/sites/default/files/inline-files/SCE%20Quarterly%20Charge%20Ready%20Pilot%20Report%202019%20Q2_WCAG_0.pdf

1 site hosts maintain ownership of charging stations in those models, it is possible
2 for the utility to own charging infrastructure and maintain site host choice and site
3 host operation. This is the case in the San Diego Gas & Electric Power Your
4 Drive Program.¹⁶ However, I maintain that utility ownership of EV charging
5 infrastructure generally comes at greater cost and risk to ratepayers than
6 incentive-based programs.

7 **Q: What actions should the Commission take to explore a longer-term vision for**
8 **EV charging?**

9 A: The Commission should consider a broader proceeding to fully examine and
10 determine the most scalable and sustainable approach to growing the EV and EV
11 charging markets in Indiana. Stakeholders for this process should include, at a
12 minimum, a range of policymakers and industry representatives from across the
13 EV and EV charging ecosystem. This forum should provide for the following
14 objectives:

- 15 • Determine whether the Commission should regulate the competitive market
16 for EV charging services, and more specifically regulate the sale of EV
17 charging equipment or services by non-utility providers. Several states have
18 examined and granted a regulatory exemption for charging services.

19 (Attachment ATS-9).

¹⁶ <https://www.sdge.com/residential/electric-vehicles/power-your-drive/power-your-drive-faq>

- 1 • Implement EV-specific rate pilots to determine the applicability of innovative
- 2 rate designs afforded by networked charging technologies, such as EV-only
- 3 time-of-use rates;
- 4 • Engage in rate design alternatives to lessen the barriers created by high
- 5 operating costs of higher-powered charging equipment from demand charges
- 6 through innovative cost recovery mechanisms;
- 7 • Review and develop best practices for interconnecting charging stations to
- 8 prepare for higher-powered charging needs and grid modernization;
- 9 • Expand development of equitable access to clean/electrified transportation;
- 10 and,
- 11 • Prepare for higher rates of charging for the next generation vehicles by
- 12 implementing new internal processes for longer-term planning to incorporate
- 13 EVs in utility strategic roadmaps.

14 **V. SUMMARY & CONCLUSION**

15 **Q: Can you please summarize your testimony?**

16 A. Yes. ChargePoint supports the intent of Duke Energy's pilot for electrification,
17 but believes that alternative program designs would be more effective to fostering
18 the deployment of EV infrastructure and carry less risk than the proposals for the
19 utility to own and operate charging stations. Duke Energy's pilot program
20 proposal needs some modifications to achieve an approach that benefits and
21 complements the existing competitive market. The Commission should approve a
22 modified pilot program for Duke Energy that significantly expands the use of site

1 host choice, site host control, and site host private investment, which is most
2 easily accomplished with rebates and other features identified in my testimony.
3 ChargePoint believes that only through such market-based incentives will Indiana
4 nurture the development of a robust network of EV charging stations and related
5 infrastructure.

6 **Q: Does this conclude your direct testimony?**

7 **A:** Yes.

8

VERIFICATION

I hereby verify under the penalties for perjury that the foregoing representations are true
to the best of my knowledge, information and belief.

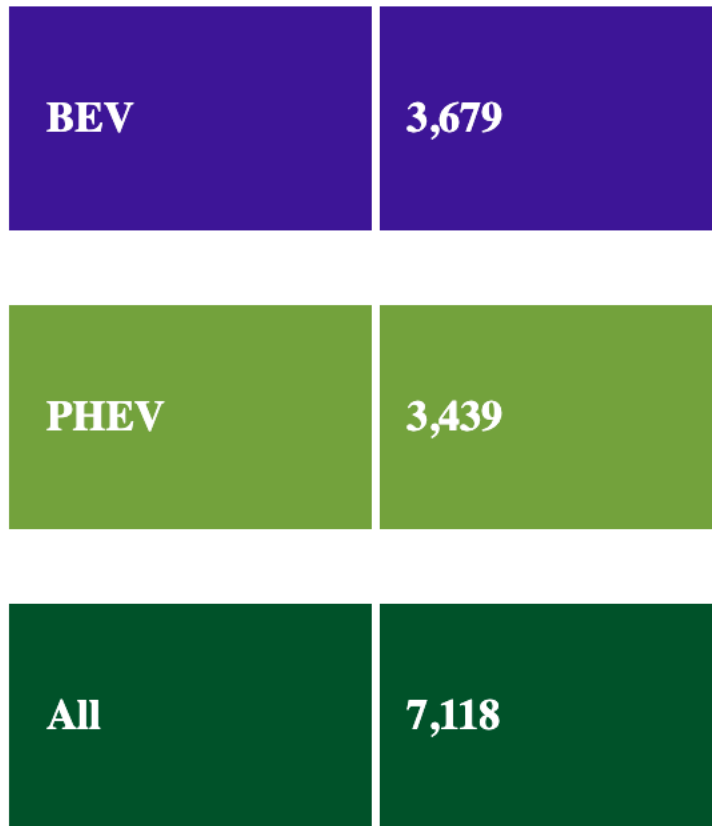
Signature: Anne T. Smart

Dated: October 30, 2019

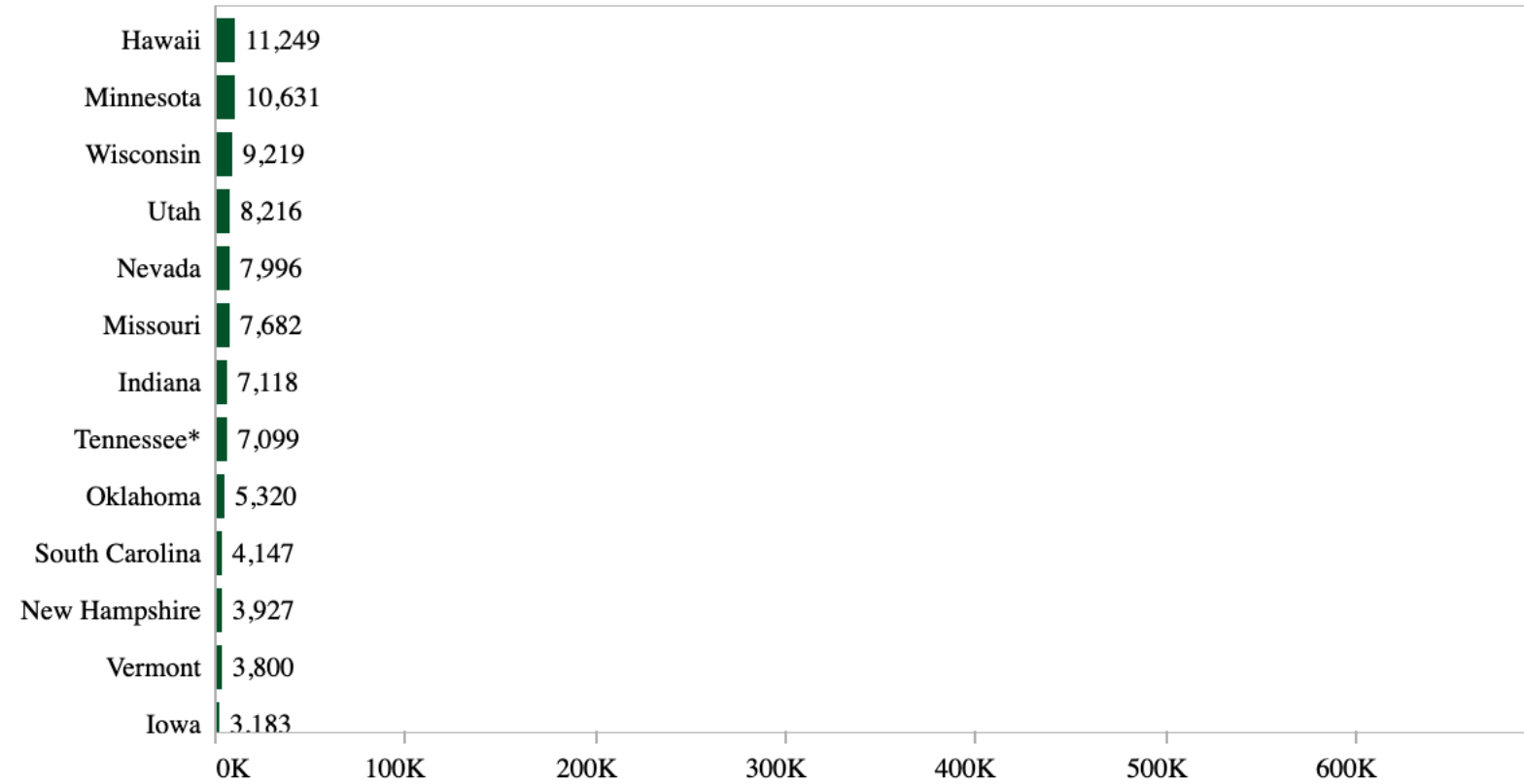
Anne T. Smart



Total Sales

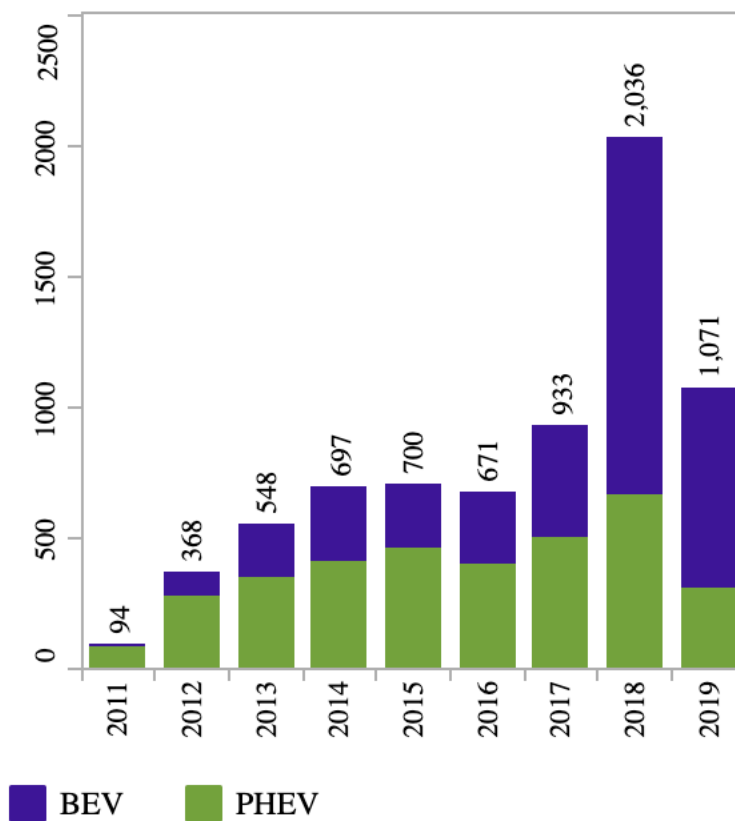


Top States by ATV Sales



Data include 50 states and Washington D.C.

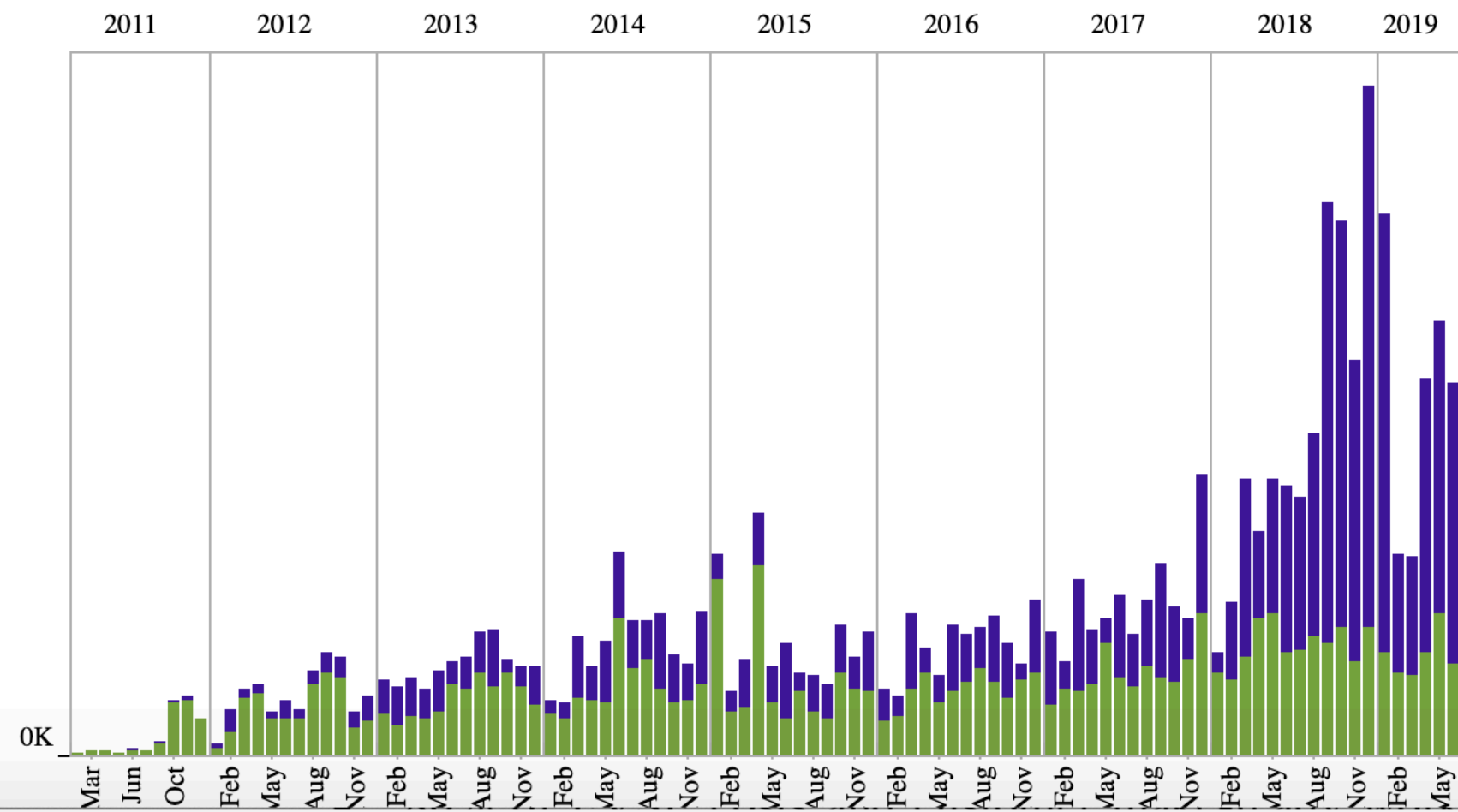
Annual Sales



Through June 2019

Hover over x-axes (lower or upper) to display

Monthly Sales



IURC CN 45253

ChargePoint Attachment ATS-2

Filed Separately in .csv Format

ChargePoint
IURC Cause No. 45253
Data Request Set No. 2
Received: October 4, 2019

ChargePoint 2.3
Interrogatories

Request:

If Duke Energy's response to Request for Admission No. 2 is anything other than an unqualified admission, does Duke Energy assert that it will deploy charging stations at sites of its choosing, rather than an approach that considers demand from potential site hosts and residents?

Response:

Duke Energy Indiana's proposal is to use the analysis performed in creating "Indiana DCFC Suitability Analysis Results Duke Territory Without 3 Phase Transformers" (Attachment ChargePoint 2.2-A) to identify general locations where DCFC investment would best support EV market growth. Since DCFC installations will be sited on customer property, an application process will be used that will necessarily consider demand from potential customer site hosts.

Witness: Lang W. Reynolds

ChargePoint
IURC Cause No. 45253
Data Request Set No. 2
Received: October 4, 2019

ChargePoint 2.12
Interrogatories

Request:

Under all proposed EV charging programs, would site hosts have a choice of both hardware and network providers for charging stations installed on their properties, as they currently do under competitive market conditions?

Response:

The requirements for the programs as currently proposed are:

- Commercial Level 2 Program: Customer may choose any hardware or network.
- Residential Level 2, Transit Bus, School Bus Programs: Customer may choose from a list of approved hardware providers compatible with Company-selected network.
- EV Fast Charge Program: Hardware and network provider will be selected by the Company.

Witness: Lang W. Reynolds

ChargePoint
IURC Cause No. 45253
Data Request Set No. 2
Received: October 4, 2019

ChargePoint 2.6
Request for Admissions

Request:

In reference to the Reynolds Testimony at Pages 4, Line 10 through Page 5, Line 8, which explains the Duke Energy's plan for adjusting the pricing for charging services based on statewide average rates, admit that Duke Energy's pricing at Duke Energy-owned and -operated charging stations may potentially undercut the statewide average rate by as much as 20%.

Objection:

Duke Energy Indiana objects to the use of the term "undercut" and its implication. Duke Energy Indiana also objects to the extent this request calls for speculation.

Response:

Subject to and without waiving or limiting its objections, and in the spirit of cooperation, Duke Energy Indiana responds as follows:

Duke Energy Indiana admits that the potential scenario referenced in this request is possible. Please see Duke Energy Indiana's response to ChargePoint Interrogatory No. 2.7 for more detail.

Witness: Lang W. Reynolds

ChargePoint
IURC Cause No. 45253
Data Request Set No. 2
Received: October 4, 2019

ChargePoint 2.11
Interrogatories

Request:

In reference to the Reynolds Testimony at Page 4, Line 10, the Company suggests that a goal of its charging service pricing policy is to “facilitate development of a competitive market[.]” Please describe and identify how the Duke Energy’s ownership and operation of charging station benefits all existing competitive market providers for charging infrastructure and services.

Objection:

Duke Energy Indiana objects to this request’s reference to “Duke Energy’s ownership” which implies facts not in evidence.

Response:

Subject to and without waiving or limiting its objections, Duke Energy Indiana responds as follows:

There is a large gap between the level of infrastructure needed to support higher levels of EV adoption and the current installed base of DCFC in Indiana. By expanding the installed base of DCFC, Duke Energy Indiana will support increased growth in the EV market. Duke Energy Indiana’s proposed DCFC investment is furthermore only a small fraction of the total forecasted infrastructure need. Therefore, due to the proposed limits on scope and size of the Duke Energy Indiana EV Fast Charge program, other market participants will benefit from increased utilization of the remaining infrastructure needed to meet expected future market growth.

With respect to ownership specifically, Duke Energy Indiana will be able to install DCFC in locations that are not heavily utilized (and thus not profitable) but are nonetheless crucial to broad market growth due to their importance in facilitating cross-state travel. These locations will greatly benefit existing and future market participants because they will not have to invest capital in these unprofitable locations and can concentrate on more populated and higher-utilization locations.

Witness: Lang W. Reynolds

ChargePoint
IURC Cause No. 45253
Data Request Set No. 2
Received: October 4, 2019

ChargePoint 2.13
Interrogatories

Request:

Duke Energy proposes a rebate program, described on Page 16 of the Reynolds Testimony, for commercial Level 2 charging infrastructure that is owned and operated by third party participants. Please describe in detail the Company's reasoning to decide against proposing the same rebate model for the Fast Charging, Electric School Bus, and Transit Bus programs, instead opting for utility ownership and operation.

Objection:

Duke Energy Indiana objects to this data request on the basis that it is vague, ambiguous as to the term "reasoning", and not reasonably calculated to lead to the discovery of admissible evidence.

Response:

Subject to and without waiving or limiting its objections, and in the spirit of cooperation, Duke Energy Indiana responds as follows:


The Commercial EV Charging Rebate program is designed to support the installation of Level 2 EVSE specifically for fleet charging applications. Because the charging stations will necessarily be required to support the daily operation of these fleet vehicles, these customers have a direct financial interest in ensuring that this infrastructure is maintained and operable. Furthermore, the proposed rebate was sized in order to ensure that the customer has a financial stake in the installation of the EVSE, providing further incentive to ensure the stations remain maintained and operable.


EV School Bus, EV Transit Bus, and public DCFC are different use cases which Duke Energy Indiana understands require more financial support in order to deploy. Given the higher level of financial support, it follows that Duke Energy Indiana should provide a higher level of oversight and control to ensure that the assets remain used and useful. Furthermore, in the case of public DCFC, as discussed in the Response to ChargePoint Interrogatory No. 2.05, public infrastructure funded by rebates is particularly susceptible to poor maintenance.


Witness: Lang W. Reynolds

EV Charging Station Incentive Program Approved Network Service Providers

Click Plus sign to expand

	
Company Website:	www.chargepoint.com
Contact:	Jimmy Smith
Email:	jimmy.smith@chargepoint.com
Phone:	669.237.3419
EV Charging Station Brands:	ChargePoint
Company Overview:	<p>ChargePoint is dedicated to enabling the future of e-mobility by providing the most open, secure and robust EV charging platform for all EV charging station owners, drivers and stakeholders. The network is fully supportive of OCPP capable charging stations and roaming networks.</p> <p>With over 51,000 commercial charging spots currently installed in North America, ChargePoint is EV driver's preferred charging experience. Drivers plug into ChargePoint approximately every 2 seconds.</p> <ul style="list-style-type: none"> • The ChargePoint network allows station owners to set consistent policies across all stations and be able to see data across stations. • 24/7 driver support ensures drivers can and will use your chargers. • 24/7 centralized station monitoring allows for remote diagnosis, repair, and upgrade of stations. <p>With ChargePoint, you can be confident you are getting the most out of your investment, now and in the future.</p>

	
Company Website:	https://greenlots.com/
Contact:	Michael Smucker
Email:	msmucker@greenlots.com
Phone:	614.974.0125
EV Charging Station Brands:	ABB, BTC Power, Efaced, EV Box, EVSE LLC, Webasto
Company Overview:	<p>Greenlots is unlocking the possibilities of the new electric mobility future by delivering innovative software and services that empowers utilities, cities, communities and automakers to deploy EV charging infrastructure at scale. Our technology is connecting people to their destinations in a safer, cleaner, and smarter way. Headquartered in Los Angeles, CA, the company's global footprint spans across three continents with deployments in 13 different countries.</p>

	
Company Website:	https://www.evconnect.com/
Contact:	Ram Ambatipudi
Email:	rambatipudi@evconnect.com
Phone:	(818) 606-9732
EV Charging Station Brands:	ABB, BTC Power, Tritium, EV Box, EVSE LLC
Company Overview:	<p>EV Connect is a leading provider of EV Charging solutions for all customer segments, including Workplace, Multi-family, Public, Retail, Destination, and Fleet applications. EV Connect is the largest independent open-standards based EV Charging network management platform with thousands of connectors under management across North America. We support world-class EV Charge station manufacturers on our platform using an industry-leading certification program that provides for better reliability and up-time of the charging stations. We provide 24x7x365 driver support, and also provided dedicated support for site hosts that install charging stations using specialized customer support resources. Through our easy to use Mobile App, drivers can initiate and pay for the charging sessions. Site hosts can monitor station status, set driver access policies and pricing policies, and download reports on station utilization. Contact EV Connect for all of your EV Charging needs.</p>



AEP Ohio EV Charging Station Incentive Program

Hardware and Software Selection Process

Version: 10 August 2018

Introduction

In order to promote EV charging market development, AEP Ohio is pleased announce the EV Charging Station Incentive Program. This program will provide a financial incentive for the hardware, network services, and installation of charging infrastructure for up to 300 level 2 charging stations and 75 DC Fast charging stations.

This document contains the information necessary for each site host to obtain the hardware and network services necessary to participate in this program.

Process

Step 1: Select the network service provider.

The network service provider (NSP) will ensure connectivity for each electric vehicle supply equipment (EVSE) station to data analytics, billing, and maintenance services.

AEP is pleased to offer three options for a NSP: ChargePoint, Greenlots and EV Connect. All three NSPs offer excellent network services and hardware options to choose from.

Step 2: Select the EVSE hardware.

If the site host selects ChargePoint as its NSP, it is recommended that ChargePoint hardware also be selected. ChargePoint offers a wide variety of Level 2 and DCFC hardware to choose from.

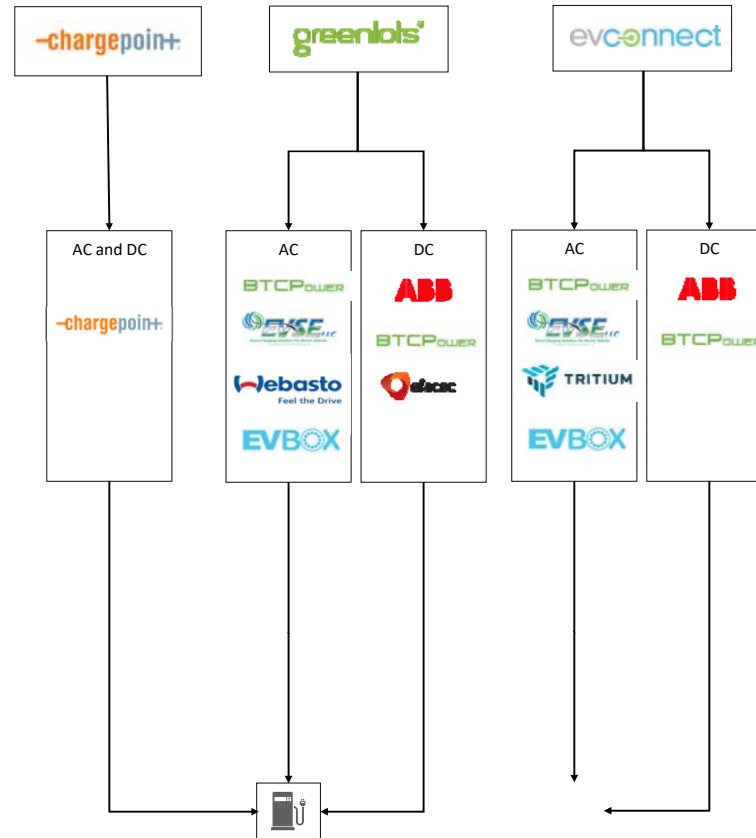
If the site host selects Greenlots or EV Connect as its NSP, then it can choose hardware offered by the various vendors shown.

The tab "Model Numbers" lists the hardware choices available to site hosts to choose from. The columns list the choices to be made by the site host:

- **Power output:** Type of power (AC or DC) dispensed by the EVSE.
- **Incentive level:** Incentive category in which each EVSE is eligible.
- **Power output:** Maximum power output of the EVSE.
- **Wall mounted/Pedestal/Bollard:** Installation locations possible for the EVSE. Most local building codes require wall and pedestal mounted EVSEs to have protection bollards installed around them; bollard EVSEs are structurally significant enough to not require such additional protection. The local code requirements at each site host will determine whether protection bollards are required.
- **Cable length:** Usable length of the charging cable. The hardware selected by AEP has sufficient cable length to reach a vehicle charge port that is located furthest away from the EVSE.
- **EVSE Software Platform Provider:** Indicates which NSP each EVSE is compatible with.
- **Single/Dual Port:** Number of charging ports, or handles, available. J1772 is the SAE standard for Level 2 charging. CCS is the SAE standard for DC charging; CHAdeMO is a DC charging standard that is used by most Japanese EVs.
- **Other Descriptors:** Additional information about each EVSE.
- **Part Number:** The part number than can be used to order that specific EVSE.

Step 3: Work with preferred partners to order, install, and commission hardware.

Once the NSP and hardware are selected, the site host may work with its preferred partners to order, install, and commission the EVSEs.





Electric Vehicle Charging Station Incentive Estimator

EV Charging Station Type	Level 2
Installation Type	Low Income
Number of Ports	6

EV Charging Station Project Budget		
Item	Cost	Cost Source (operational budget, other grant funding, etc.)
EV Charging Station Equipment (Eligible for Incentive Funding)		
Hardware (e.g. Two Dual Port, Networked Chargers)	\$ 25,000.00	Capital Improvement Budget
Network Services	\$ 6,000.00	Operational Budget
Subtotal	\$ 31,000.00	
Installation Parts and Labor (Eligible for Incentive Funding)		
Permits	\$ 1,000.00	Capital Improvement Budget
AEP Ohio distribution service upgrades (if needed)	\$ 15,000.00	Capital Improvement Budget
Trenching/boring work and labor	\$ 1,000.00	Capital Improvement Budget
Electrical conduit parts and labor	\$ 4,500.00	Capital Improvement Budget
Poured Foundation parts and labor	\$ 1,500.00	Capital Improvement Budget
Traffic Protection parts and labor (if needed)	\$ -	Capital Improvement Budget
Other electrical system upgrades/additions (e.g. panel and circuitry, meter, etc.)	\$ 1,000.00	Capital Improvement Budget
Subtotal	\$ 24,000.00	
Total Eligible Project Cost	\$ 50,000.00	
Other Project Costs (Ineligible for Incentive Funding)		
e.g. Landscaping, Signage, Parking Space Painting	\$ 1,500.00	Capital Improvement Budget
Subtotal	\$ 1,500.00	
Total Project Cost	\$ 56,500.00	
Total Estimated Incentive*	\$50,000	

* Estimated incentive is for informational purposes only. AEP Ohio makes no representations, warranties or guarantees that use of or results of this estimating tool will be accurate or without errors. Additional terms and conditions apply as specified in the Joint Stipulation and Recommendation in PUCO Case No. 16-1852-EL-SSO

EVSE Vendor Model Numbers

EVSE Hardware Manufacturer	Power Output: [AC/DC]	Rebate Level [L2/DCFC]	Power Output [kW]	Wall Mounted / Pedestal / Bollard	Cable Length [ft]	EVSE Software Platform Provider	Single/Dual Port	Other Descriptors	Additional Desired Features To Be Confirmed By Site Host	Part Number
ABB	DC	DCFC	50	Pedestal	12 or 20	Greenlots, EV Connect	CCS/CHADEMO	Terra 53CJ 50 kW DCFC	Connectivity options: Charger Connect = 6AGC064781 CCPP API = 4EPY450053-1	12 ft cable: 4EPY410104R1; 20 ft cable: 4EPY410108R1
BTCPower	AC	L2	7.2	Wall Mounted	21	Greenlots, EV Connect	Single J1772	Single-Port Level 2 EVSE - 30A Wall Moun	N/A	EVP-2001-30-W-001
	AC	L2	7.2	Wall Mounted	21	Greenlots, EV Connect	Dual J1772	Dual-Port Level 2 EVSE - 30A Wall Moun	N/A	EVP-2002-30-W-001
	AC	L2	7.2	Pedestal	21	Greenlots, EV Connect	Single J1772	Single-Port Level 2 EVSE - 30A Pedest	N/A	EVP-2001-30-P-001
	AC	L2	7.2	Pedestal	21	Greenlots, EV Connect	Dual J1772	Dual-Port Pedestal Level 2 EVSE - 30A Pedest	N/A	EVP-2002-30-P-001
	DC	L2	25	Pedestal	17	Greenlots, EV Connect	CCS/CHADEMO	New 25kW Compact DC Fast Charger, Dual-Connectors (SAE Combo, Chadem	Desired cable length	IL3-25KS-480
	DC	DCFC	50	Pedestal	17	Greenlots, EV Connect	CCS/CHADEMO	50kW DC Fast Charger (Standard), Dual Connectors (SAE Combo, Chadem	Desired cable length	EVP-FC-50-001
	DC	DCFC	50	Pedestal	17	Greenlots, EV Connect	CCS/CHADEMO	50kW DC Fast Charger (Slim), Dual Connectors (SAE Combo, Chadem	Desired cable length	EVP-FC-50-002
	DC	DCFC	100, 150, or 200	Pedestal	17	Greenlots, EV Connect	CCS/CHADEMO	100kW, 150kW, 200kW Multi-Node, High-Power Charging Systems	Desired cable length	EVPC-200-2-480-3 (Power Enclosure)
										EV/DSP-350-5-120-0-2-C-4-0 (Dispenser)
	AC	L2	9.6 (240V x 40A)	Pedestal	25' or 18'	EV Connect	Dual J1772	Dual-port Level 2 EVSE 40A Pedests	240/208 VAC optior	L2P-40-240-D
	AC	L2	9.6	Pedestal	25' or 18'	EV Connect	Single J1772	Single-port Level 2 EVSE 40A Pedests	240/208 VAC optior	L2P-40-240-S
	AC	L2	9.6	Wall	25' or 18'	EV Connect	Dual J1772	Dual-port Level 2 EVSE 40A Wal	240/208 VAC optior	L2W-40-240-D
	AC	L2	9.6	Wall	25' or 18'	EV Connect	Single J1772	Single-port Level 2 EVSE 40A Wal	240/208 VAC optior	L2W-40-240-S
	AC	L2	16.8 (240V x 70A)	Pedestal	25' or 18'	EV Connect	Single J1772	Single-port Level 2 EVSE 70A Pedests	240/208 VAC optior	L2P-70-240-S
	AC	L2	16.8	Wall	25' or 18'	EV Connect	Single J1772	Single-port Level 2 EVSE 70A Wal	240/208 VAC optior	L2W-70-240-S
ChargePoint	AC	L2	7.2	Bollard	18	ChargePoint	Single J1772	Gateway Modem, 6 ft ta	N/A	CT4011-GW1
	AC	L2	7.2	Bollard	18	ChargePoint	Single J1772	Non Gateway Model, 6 ft ta	N/A	CT4011
	AC	L2	7.2	Wall Mounted	18	ChargePoint	Single J1772	Gateway Modem, 6 ft ta	N/A	CT4013-GW1
	AC	L2	7.2	Wall Mounted	18	ChargePoint	Single J1772	Non Gateway Model, 6 ft ta	N/A	CT4013
	AC	L2	7.2	Bollard	18	ChargePoint	Dual J1772	Gateway Modem, 6 ft ta	N/A	CT4021-GW1
	AC	L2	7.2	Bollard	18	ChargePoint	Dual J1772	Non Gateway Model, 6 ft ta	N/A	CT4021
	AC	L2	7.2	Wall Mounted	18	ChargePoint	Dual J1772	Gateway Modem, 6 ft ta	N/A	CT4023-GW1
	AC	L2	7.2	Wall Mounted	18	ChargePoint	Dual J1772	Non Gateway Model, 6 ft ta	N/A	CT4023
	AC	L2	7.2	Bollard	18	ChargePoint	Dual J1772	Gateway Modem, 8 ft ta	N/A	CT4025-GW1
	AC	L2	7.2	Bollard	18	ChargePoint	Dual J1772	Non Gateway Model, 8 ft ta	N/A	CT4025
	AC	L2	7.2	Wall Mounted	18	ChargePoint	Dual J1772	Gateway Modem, 8 ft ta	N/A	CT4027-GW1
	AC	L2	7.2	Wall Mounted	18	ChargePoint	Dual J1772	Non Gateway Model, 8 ft ta	N/A	CT4027
	AC	L2	7.7	Wall Mounted	18	ChargePoint	Single J1772	Single wall moun	N/A	CPF25-L18
	AC	L2	7.7	Wall Mounted	23	ChargePoint	Single J1772	Single wall moun	N/A	CPF25-L23
	AC	L2	7.7	Wall Mounted	18	ChargePoint	Single J1772	Single wall mount and cord management k	N/A	CPF25-L18-CMK6
	AC	L2	7.7	Wall Mounted	23	ChargePoint	Single J1772	Single wall mount and cord management k	N/A	CPF25-L23-CMK8
	AC	L2	7.7	Pedestal	18	ChargePoint	Single J1772	Single pedestal moun	N/A	CPF25-L18-PD
	AC	L2	7.7	Pedestal	23	ChargePoint	Single J1772	Single pedestal moun	N/A	CPF25-L23-PD
	AC	L2	7.7	Pedestal	18	ChargePoint	Single J1772	Single pedestal mount and cord management l	N/A	CPF25-L18-CMK6-PD
	AC	L2	7.7	Pedestal	23	ChargePoint	Single J1772	Single pedestal mount and cord management l	N/A	CPF25-L23-CMK6-PD
	AC	L2	7.7	Pedestal	18	ChargePoint	Dual J1772	Two stations with dual pedestal moun	N/A	CPF25-L18-PD-Dual
	AC	L2	7.7	Pedestal	23	ChargePoint	Dual J1772	Two stations with dual pedestal moun	N/A	CPF25-L23-PD-Dual
	AC	L2	7.7	Pedestal	18	ChargePoint	Dual J1772	Two stations with dual pedestal mount and cord management l	N/A	CPF-25-L18-CMK6-PD-Dual
	DC	DCFC	50	Pedestal	12.5	ChargePoint	CCS/CHADEMO	50 kW DCFC	N/A	CPE200T-S-CHD-CMB
	DC	DCFC	50	Pedestal	14.5	ChargePoint	CCS/CHADEMO	50 kW DCFC	N/A	CPE250C-500-CCS1-CHD
	DC	DCFC	62.5	Pedestal	14.5	ChargePoint	CCS/CHADEMO	62.5 kW DCFC	N/A	CPE250C-625-CCS1-CHD
Efacec	DC	DCFC	50	Pedestal	12	Greenlots	CCS/CHADEMO	50 kW DC Fast Charger	Data modem type [GSM or CDMA]	EV-QC45-UL-(X*)CCB-DCA-DCC-C-GL; X* = modem type [G = GSM, C = CDMA]
	DC	DCFC	160	Bollard	12	Greenlots	CCS/CHADEMO	160 kW DC Fast Charger	Data modem type [GSM or CDMA]	EV-HV160
EVSE LLC/CM	AC	L2	7.2	Wall Mounted	20	Greenlots	Dual J1772	Wall or Pole mounted, single or dui	Wall or Pole mount, Data router type and networking capability [Zigbee or Seri	3703-1000-W-20-36-45
	AC	L2	7.2	Wall Mounted	20	Greenlots	Single J1772	Wall or Pole mounted, single	Wall or Pole mount, Data router type and networking capability [Zigbee or Seri	3704-1000-W-20-36-45
Tritium	DC	DCFC	50	Pedestal	18	Greenlots, EV Connect	CCS/CHADEMO	Veefil RT 50 kW DC Fast Charger	N/A	TRT-VEEFIL-50KW-DUAL-RFID
Webasto	AC	L2	7.2	Wall Mounted	25	Greenlots	Single J1772	TurboDX	N/A	AV-DX-EVSE
EVBox	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Hub - 18ft Cables - 4G - Blu	N/A	B2320-D15063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Hub - 18ft Cables - 4G - Gre	N/A	B2320-D15063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Hub - 18ft Cables - 4G - Whit	N/A	B2320-D15063-GRL-07.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Hub - 25ft Cables - 4G - Blu	N/A	B2320-D15063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Hub - 25ft Cables - 4G - Gre	N/A	B2320-D15063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Hub - 25ft Cables - 4G - Whit	N/A	B2320-D15063-GRL-07.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Satellites - 18ft Cables - Bl	N/A	B2320-45063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Satellites - 18ft Cables - Gr	N/A	B2320-45063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Satellites - 18ft Cables - Whit	N/A	B2320-45063-GRL-07.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Satellites - 25ft Cables - Bl	N/A	B2320-45063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Satellites - 25ft Cables - Gr	N/A	B2320-45063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Single	BusinessLine Single - Greenlots Networked - Satellites - 25ft Cables - Whit	N/A	B2320-45063-GRL-07.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Single	BusinessLine Double - Greenlots Networked - Hub - 18ft Cables - 4G - Blu	N/A	B2323-D15063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Hub - 18ft Cables - 4G - Gre	N/A	B2323-D15063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Hub - 18ft Cables - 4G - Whit	N/A	B2323-D15063-GRL-07.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Hub - 25ft Cables - 4G - Blu	N/A	B2323-D15063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Hub - 25ft Cables - 4G - Gre	N/A	B2323-D15063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Hub - 25ft Cables - 4G - Whit	N/A	B2323-D15063-GRL-07.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Satellites - 18ft Cables - Bl	N/A	B2323-45063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Satellites - 18ft Cables - Gr	N/A	B2323-45063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	18	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Satellites - 18ft Cables - Whit	N/A	B2323-45063-GRL-07.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Satellites - 25ft Cables - Bl	N/A	B2323-45063-GRL-01.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Satellites - 25ft Cables - Gr	N/A	B2323-45063-GRL-04.2
	AC	L2	7.4kW	Wall or Pedesta	25	Greenlots, EV Connect	Dual	BusinessLine Double - Greenlots Networked - Satellites - 25ft Cables - Whit	N/A	B2323-45063-GRL-07.2

31 States, D.C., and Austin Allow EV Charging per kWh as Non-Utility
(Current as of October 2019)

STATE	CITATION	SUMMARY
Alabama	Docket No. 32694	A person who owns, operates, leases or controls EV charging stations in AL is not a utility under <i>Code Section 37-4-1</i> , and thus is not subject to the jurisdiction of the Commission, pursuant to Title 37, <i>Code of Alabama</i> .
Arkansas	SB 272 (2017) Arkansas Code § 23-1-101(9)	The term “public utility” as defined does not include a person or corporation that purchases electricity from a utility, furnishes electricity exclusively to charge EVs and PHEVs for compensation, and is not otherwise a public utility.
Arizona	Docket No. RU-00000A-18- 0284	Arizona Corporation Commission finds “the service engaged by companies to charge batteries for electric vehicles does not qualify electric charging providers as public service corporations under the Arizona Constitution.” Further the Commission concludes “based on our constitutional mandate and case law that electric charging providers should not be considered public service corporations.”
California	AB 631 PU Code § 216(i)	Amends section 216 of the PUC Code and places into law CPUC decision 09-08-009 exempting electric vehicle charging equipment or providers from regulation as a utility.
Colorado	House Bill 12- 1258 Col. Rv. Stats Ch. 40 § 101- 104	Persons selling electricity...to the public for use as a fuel in alternative fuel vehicles ...are not subject to regulation as a public utility and are not subject to the jurisdiction, control, and regulation of the Commission or any other public regulatory body
Connecticut	HB 5510 (2016) Section 16-1 of the 2016 supplement to gen. statutes	(c) An owner of an electric vehicle charging station, as defined in section 16-19f, as amended by this act, shall not be deemed to be a "utility", "public utility" or "public service company" solely by virtue of the fact that such owner is an owner of an electric vehicle charging station.
DC	Council Bill 19- 749	Energy Innovation and Savings Amendment Act of 2012”: Public Utility excludes a person or entity that owns or operates electric vehicle supply equipment but does not sell or distribute electricity...”
Florida	Fl. Rev. Stat. § 27-366.94	Passed into law in 2012, Chapter 27-366.94 is amended to specify that provision of electric vehicle charging to the public by a nonutility is not considered a retail sale of electricity. In addition rates, terms and services of electric

		vehicle charging services are not subject to regulation by the Florida Public Service Commission
Hawaii	Ha.Rev. Stat. § 269-1	Hawaii Revised Statutes states that owners and operators of facilities used primarily to charge vehicle batteries for electric vehicles are exempt from the definition of utility
Idaho	Idaho Code Section 61-119	Exempts electricity purchased from a public utility to charge the batteries of an electric motor vehicle
Illinois	220 ILCS 5/3-105 cha 1112/3 par 3-104 enacted 1-24-12	Amends Public Utilities Act. Provides that a company that owns or operates a facility that furnishes or sells electricity to the public for the purpose of charging electric vehicles is not and shall not be deemed a public utility
Kentucky	Case No. 2018-00372	“An EVCS that receives electric service from a jurisdictional electric utility or that obtains electricity from a behind the meter source is not an electric utility as defined by KRS 278.010(3)(a), is not subject to the certification requirements of KRS 278.020(1), and is not subject to the Commission's jurisdiction.”
Iowa	Docket No. RMU-2018-0100	“Electric energy sold for the purpose of electric vehicle charging at a commercial or public electric vehicle charging station constitutes neither the furnishing of electricity to the public nor the resale of electric service.” “A rate-regulated public utility shall not, through its filed tariff, prohibit electric vehicle charging or restrict the method of sale of electric vehicle charging at a commercial or public electric vehicle charging station.
Maine	LD 593 Sec. 1. 35 -A MRSA § 313-A	“ ‘Competitive electricity provider’ means a marketer, broker, aggregator or any other entity selling electricity to the public at retail, but does not include an electric vehicle charging station provider.”
Maryland	SB 997, HB/1280, Chapters 631 and 632, Acts 2012 State Govt. Code 1-101(j)	Electric Vehicle Users and Charging Stations-Exclusions Provides regulatory clarification for owners and operators of PEV Charging Stations and PEV Charging station service companies or provider by excluding them from the definition of “electricity supplier” or a “public service company” as defined in law and regulated by the Maryland Public Service Commission.
Massachusetts	Case D.P.U. 13-182-A	Massachusetts Department of Public Utilities order (August 4, 2014) determines that owners and operators of EVSE are “not subject to the Department’s jurisdiction under the current statutory structure either as distribution companies, electric companies, or otherwise.”

Michigan	Case Nos. U-17990 & U-20162 Final PSC Order <i>Consumers & DTE service areas</i>	“The proposal indeed appears to be non-controversial, and the Commission agrees with the Staff that the sale of electricity by charging station owners should not be treated as a resale of electricity under the tariff, or as a sale by regulated utilities. This is a necessary change to the tariff language which the Commission approves.” “The Commission...finds that DTE Electric should be required to file amended tariffs allowing sale-for-resale for commercial EV charging site hosts.”
Minnesota	Minn. Stat. § 216B.02 Subdivision 4.[3])	Minnesota Statute states that the definition of a public utility does not include a retail seller of electricity used to recharge a battery that powers an electric vehicle and that is not otherwise a public utility
Missouri	HB 355 (2019) RSMo 386.020	Term “electrical corporation” shall not include: Persons or corporations not otherwise engaged in the production or sale of electricity at wholesale or retail that sell, lease, own, control, operate, or manage one or more electric vehicle charging stations.
Nevada	SB145, NRS 704.021 (11.)	Nevada statutory definition of a “public utility” or “utility” does not include: “Persons who own, control, operate or manage a facility that supplies electricity only for use to charge electric vehicles.”
New Mexico	HB 521 (2019)	A. The term "public utility" or "utility", when used in the Public Utility Act, shall not include: (1) any person not otherwise a public utility who furnishes the service or commodity only to that person or that person's employees or tenants, when such service or commodity is not resold to or used by others, or who engages in the retail distribution of natural gas or electricity for vehicular fuel.”
New York	Case 13-E-0199 NY PSC Declaratory Ruling on Jurisdiction	NY State Public Service Commission declaratory ruling finds that the PSC does not have jurisdiction over (1) charging stations; (2) owners or operators of charging stations; or (3) the transaction between such owners or operators and members of the public.
North Carolina	HB 329	The term "public utility" shall not include a person who uses an electric vehicle charging station to resell electricity to the public for compensation [...]. (Some conditions apply).
New Hampshire	RSA 236:133 as amended by SB 575 of 2018	“IV. An owner of an electric vehicle charging station shall not be deemed to be a “utility,” “public utility,” or “public service company” solely by virtue of the fact that such an owner is an owner of an electric vehicle charging station.

		All electricity distribution companies shall make available in tariffs terms and rates for electronic vehicle charging stations and offer such information to the public.”
Oklahoma	OAC 165:35-13-1(c)	“Sales of charging services from an electric vehicle charging station, not owned by a regulated utility, for the purpose of fueling an electric vehicle, including the ability to sell on a kWh basis, shall not be considered resale of retail electricity, and such sales from electric vehicle charging station shall not be subject to rate regulation by the Commission. Utility service to an electric vehicle charging station shall be provided subject to the utility’s terms and conditions.”
Oregon	Or. Stats. § 757.005(1)(b)(G)	The statutory definition of “public utility” does not include any corporation, company, partnership, individual or association of individuals that furnishes electricity for use in motor vehicles as long as the entity is not otherwise a public utility.
Pennsylvania	Final Policy Statement Order, M-2017-2604382	52 Pa. Code § 69.3501 (Section 1313 of the Public Utility Code) (a) Section 1313 of the Public Utility Code, 66 Pa. C.S. § 1313 (relating to price upon resale of public utility services), applies restrictions on the resale of utility service to residential customers. (b) It shall be the policy of the Commission that a person, corporation or other entity, not a public utility, electric cooperative corporation, municipal authority or municipal corporation, owning and operating an electric vehicle charging facility that is open to the public for the sole purpose of recharging an electric vehicle battery should not be construed to be a sale to a residential consumer and should therefore not fall under the pricing requirements of 66 Pa. C.S. § 1313 (relating to price upon resale of public utility services).
Utah	H.B. 19 (2014) Utah Code § 54-2-1	Statutory definitions of “electrical corporation” and “public utility” do not include an entity that sells electric vehicle battery charging services.
Texas <i>Austin Energy Territory Only</i>	City Code Section § 15-9-121	This action amends City Code Section § 15-9-121 to allow third parties to deploy, own, and operate electric vehicle (EV) charging stations for compensation. Specifically, this change amends the Code to state that restrictions on the remetering and resale of energy do not apply to the

		provision of retail EV charging service at the point of remetering or resale.
Vermont	Sec. 39. 30 V.S.A. § 203 <i>as amended by Act No. 59 of 2019</i>	“(7) Notwithstanding subdivisions (1) and (2) of this section, the Commission and Department shall not have jurisdiction over persons otherwise not regulated by the Commission that is engaged in the siting, construction, ownership, operation, or control of a facility that sells or supplies electricity to the public exclusively for charging a plug-in electric vehicle, as defined in 23 V.S.A. § 4(85). These persons may charge by the kWh for owned or operated electric vehicle supply equipment, as defined in 30 V.S.A. § 201, but shall not be treated as an electric distribution utility just because electric vehicle supply equipment charges by the kWh.”
Virginia	Va. Code Ann. § 56-1.2 and 56.1.2:1	Virginia Code makes several stipulations stating that a person not otherwise a public service corporation and who provides electric vehicle charging service at retail is not designated as a public utility, public service corporation, or public service company. In addition, the statute stipulates that electric vehicle charging service does not constitute a retail sale of electricity.
Washington	SHB 1571, Chapter 28 Laws 2011 Rev. Code of Wash. 80.28.320	The 2011 legislation established that the Washington Utilities and Transportation Commission shall not regulate the rates, services, facilities, and practices of an entity that offers battery charging facilities to the public for hire if (1) that entity is not otherwise subject to commission jurisdiction as an electrical company; (2) that entity is otherwise subject to commission jurisdiction as an electrical company, but its battery charging facilities and services are not subsidized by any regulated service. An electrical company may offer battery charging facilities as a regulated service, subject to commission approval
West Virginia	W.Va. Code § 24-2D-3	PSC has no jurisdiction over ultimate sale by non-utilities of alternate fuel used for motor vehicles.