

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the Matter of the Application of Union            )  
Electric Company d/b/a Ameren Missouri            )  
for Approval of a Tariff Setting a Rate for            )  
Electric Vehicle Charging Stations.                )            Case No. ET-2016-0246

**CHARGEPOINT INC.’S INITIAL BRIEF**

**A. Introduction**

On August 15, 2016, Union Electric Company d/b/a Ameren Missouri (“Ameren”) filed an application requesting that the Commission approve a tariff authorizing a pilot program to install and operate electric vehicle (“EV”) charging stations at locations within Ameren’s service area. As part of this pilot Ameren identified six charging station site locations, or “charging islands,” each of which will feature both direct current fast-charging (“DCFC”) and standard Level 2 alternating current (“AC”) charging stations for public use. These charging islands will be located in selected communities along the I-70 interstate corridor between Boonville and St. Louis City plus an additional charging island in Jefferson City.

Despite what may seem to be a worthwhile venture on the surface of these submissions,<sup>1</sup> the tariff and the application reach deeply into the future and encouragement of existing competition in the EV charging service industry. They are quite heavy with important questions and ChargePoint, Inc. (“ChargePoint”), as a participant in the growing competitive EV charging service market, sought and obtained intervention in this matter to help address them among other

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<sup>1</sup> On the second day of hearing, Chairman Hall asked the parties to brief whether Ameren’s application and tariff submission were defective in any way not considering the jurisdictional issues that had been raised. In ChargePoint’s estimation the application and tariff show no irregularity or invalidity when setting aside the issue of Commission jurisdiction.

purposes.<sup>2</sup> The testimony at hearing and the exchanges between witnesses and commissioners confirm the greater magnitude of the matter. The Commission's decision in this case will be a landmark. Its decision will have a direct effect on the shaping of ideas, plans, and market strategies to come.

## **B. ChargePoint**

### **1. ChargePoint business model**

ChargePoint, which is headquartered in Campbell, California, engineers, manufactures, and sells the equipment and network services necessary for EV charging station owners to effectively provide charging services to drivers who visit their properties. The site host, as the owner and operator of the charging station,<sup>3</sup> is free to set the price to EV drivers who use the charging station or a site host may offer free charging. ChargePoint does not set the pricing to drivers at any station. ChargePoint sells the site host a subscription service to manage its charging infrastructure using cloud-based software tools. ChargePoint also provides services to drivers, free of charge, which allow them to easily find and access the EV infrastructure provided by station owners through a mobile app, in-vehicle navigation and a website.<sup>4</sup>

ChargePoint sells Level 2 (L2), DCFC, and high speed fast charging products and services. For station owners, ChargePoint provides subscriptions to its cloud-based platform which allows the owner to manage EV charging operations, including online management tools for data analysis, payment processing, load management, and access control. Stations are connected to the ChargePoint network over a secure, cellular data network allowing station owners to manage all their charging operations from a single dashboard. ChargePoint also offers

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<sup>2</sup> See discussion *infra* regarding impact of the pilot on competition.

<sup>3</sup> In most cases, ChargePoint does not own the hardware but there are exceptions. The site host most commonly is the owner of the equipment.

<sup>4</sup> Exhibit 300, Smart Rebuttal at page 2.

a comprehensive set of support services for both EV drivers and station hosts, including: 24/7/365 hotline for drivers, the industry's first Parts and On-Site Labor warranty, site qualification, installation and validation services. For drivers, ChargePoint provides a single mobile and web application for all aspects of their public, workplace, and home EV charging. ChargePoint drivers have access to real time information, payment and support services through the information available on the screen of the charging station, in their mobile app, via email and text notifications, or on the ChargePoint website.<sup>5</sup>

## **2. ChargePoint Customers**

ChargePoint has 240,000 EV drivers registered on the ChargePoint network including more than 1,410 registered users in Missouri.<sup>6</sup>

ChargePoint has more than 6,200 station owners as customers. Its customers are workplaces, governments, hotels, colleges and universities, hospitals, utilities, parking garages, airports, multifamily housing, auto dealerships and other businesses. ChargePoint customers in Missouri include Washington University – St. Louis, the Missouri Botanical Garden, the Anheuser-Busch Employees' Credit Union, Busch Stadium, the Missouri National Guard, Mastercard, Nissan dealerships, and BMW dealerships, among others.<sup>7</sup>

ChargePoint has at least 37 public charging ports in Ameren's service territory in the St. Louis area, Jefferson City, and Columbia. Below is a map of all public ChargePoint ports across Missouri. The numbers in the circles indicate the number of ports in that area and the colors indicate whether or not the station was in use by a driver when the map was saved. (White on the circle indicates that a station in that area is in use.)<sup>8</sup>

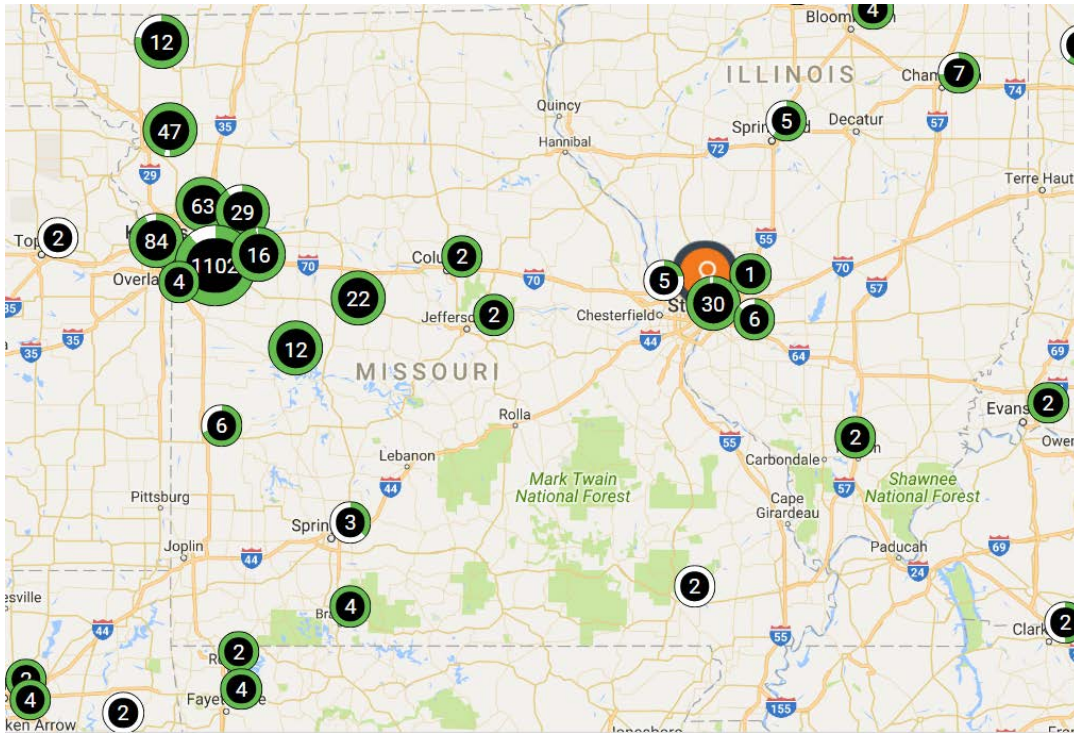
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<sup>5</sup> Exhibit 300, Smart Rebuttal, page 3.

<sup>6</sup> Exhibit 300, Smart Rebuttal, page 4.

<sup>7</sup> Exhibit 300, Smart Rebuttal, page 5.

<sup>8</sup> Exhibit 300, Smart Rebuttal, pages 5-6.



ChargePoint has customers that own and operate their own fast chargers in the area that Ameren proposes to operate its pilot including St. Charles Nissan, Bommarito Nissan, and Lou Fusz Motor Company.<sup>9</sup>

**C. Issues**<sup>10</sup>

**1. Jurisdiction.**

*Does the Commission have jurisdiction to regulate utility-owned and operated electric vehicle charging stations operated in a utility’s service area?*

<sup>9</sup> Exhibit 300, Smart Rebuttal, page 7.

<sup>10</sup> ChargePoint, along with the Office of Public Counsel, Midwest Energy Consumers Group and Consumers Council of Missouri, arrived at a separate list of issues which was filed with the Commission on January 4, 2017.

ChargePoint contends that the Commission lacks jurisdiction over charging stations and those who own or operate them. The parties have earlier submitted arguments on this issue in the beginning phases of this case. An argument that has been given only passing attention is whether this “charging service” is a “public utility service.” If it is not, the Commission lacks authority to adopt rules regarding the conditions of providing that service, connection to that service and billing. See, Section 386.230(6).<sup>11</sup>

The attributes of a monopoly cannot be assigned to an EV charging service. EV battery charging is the offspring of the automobile industry. It did not originate with electrical corporations. Non public utilities, such as municipalities, private and state employers, and car dealerships, have been and are actively providing the service already.<sup>12</sup> Public utilities are relative newcomers in the market. Given that the “charging service” field is well populated by unregulated firms, the claim that EV charging service constitutes a “public utility service” has no merit. The Commission should find and determine that EV charging services do not constitute a “public utility service.”

Moreover, under Section 386.020(43) a jurisdictional “public utility” includes an “electrical corporation” as defined in the Public Service Commission Law.<sup>13</sup> The term “electrical corporation” is defined in Section 386.020(15) as a:

*corporation, company, association, joint stock company or association, partnership and person, their lessees, trustees or receivers appointed by any court whatsoever, other than a railroad, light rail or street railroad corporation generating electricity solely for railroad, light rail or street railroad purposes or for the use of its tenants and not for sale to others, owning, operating, controlling or managing any electric plant . . . .* [emphasis added]

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<sup>11</sup> Statutory citations are to RSMo 2000 or its current supplement.

<sup>12</sup> It would undoubtedly surprise the manufacturers of electric vehicles to learn that after inventing the vehicle they could not arrange for the charging of EV batteries at their franchised dealerships or elsewhere except pursuant to certificates and tariffs approved by state public utility commissions where they operate.

<sup>13</sup> The Commission has general supervisory authority over electrical corporations. Section 393.140(1).

The term “electric plant” is defined in Section 386.020(14) as:

[A]ll real estate, fixtures and personal property operated, controlled, owned, used or to be used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity *for light, heat or power*; and any conduits, ducts or other devices, materials, apparatus or property for containing, holding or carrying conductors used or to be used for the transmission of electricity *for light, heat or power*. [emphasis added].

A chief query in this matter was voiced by Chairman Hall during opening statements:

CHAIRMAN HALL: I mean, can't we -- doesn't this really come down specifically to whether or not the Commission believes that the sale of this electricity at these charging stations, whether that is for light, heat and power? <sup>14</sup>

The evidence establishes convincingly that the power supplied to an EV charging station is a coincident of a charging service and not for purposes of supplying energy for light, heat or power. Nineteen states have so found in separate examinations of this issue.<sup>15</sup>

Particularly, in the State of New York, whose Public Service Commission Law is the same or nearly the same as that adopted in Missouri, the New York Public Service Commission justly concluded:

Charging Stations do not fall within the definition of “electric plant” because Charging Stations are not used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity for light heat or power. Instead, and as urged by several commenters, Charging Stations are used to provide a service, specifically, charging services. This service requires the use of specialized equipment and allows the customer to do only one thing, charge a PEV’s battery. The primary purpose of the transaction between Charging Station owners/operators and members of the public is the purchase of this service and the use of this specialized equipment. While the customer is using electricity, this is incidental to the transaction.

Since a Charging Station is not electric plant, the owners or operators of Charging Stations do not fall within the definition of electric corporation.

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<sup>14</sup> Tr. 28-29.

<sup>15</sup> California, Colorado, Connecticut, Washington DC, Florida, Hawaii, Idaho, Illinois, Maine, Maryland, Massachusetts, Minnesota, New York, Oregon, Pennsylvania, Utah, Virginia, Washington, West Virginia. The Commission will find in Appendix A to this brief a listing of the cases in which each state regulatory commission rendered its ruling as well as a brief summary of the ruling.

Additionally, the method of calculating the transaction fee, specifically, the use of a per kWh price, will not confer jurisdiction where none otherwise exists. We note that the owners and operators of Charging Stations may decide that a time based fee or kWh based fee, or other fee structure is appropriate.<sup>16</sup>

The Commission should find and determine that charging stations do not constitute “electric plant” and hence the owners and operators of those charging stations are not “electrical corporations.”

## **2. Public Policy**

- a.** *Are there public benefits realized if the Commission approves Ameren Missouri’s proposal to install six electric vehicle charging stations in Ameren’s service territory.*

ChargePoint has written before and repeats that it supports public utility investments in EV charging infrastructure. Increasing access to charging stations, in coordination with a competitive EV charging industry, can encourage EV adoption and EV charging, which provides the grid with benefits from increased load, opportunities for load management and balancing with intermittent renewables, and overall downward pressure on electricity rates for all customers, including non-EV drivers. However, there are flaws in Ameren’s pilot proposal that pose a significant risk to the competition developing in this market. The Commission’s decision in this case must be tailored to safeguard competition.

- b.** *Is Ameren acting as a regulated utility in offering this service?*

Very briefly, Ameren represents that it would act as a public utility in providing EV charging services but this is pretense. The proposed installation of EV charging stations and provision of EV charging services would not constitute services Ameren offers as a public utility. As discussed above, an EV charging service is not a “public utility service.” It is no

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<sup>16</sup> *Declaratory Ruling on Jurisdiction Over Publicly Available Electric Vehicle Charging Stations*, Case 13-E-0199, New York Public Service Commission, November 22, 2015 at page 4.

more a public utility service than charging a cell phone or personal electronic device at a charging tower located in a waiting area in an airport terminal. Simply because a public utility intends to offer EV charging does not convert it to a “public utility service.”

- c. *Does the pilot design proposed by Ameren impact competition with third parties for charging station sites in its service territory?*

The discussion of this sub-issue and issues in Section 3 and 4 below all assume for argument only that the Commission has jurisdiction over EV charging. By addressing this issue, and those in subsequent sections of this brief, ChargePoint does not abandon its position as argued in the foregoing that the Commission does indeed lack jurisdiction to regulate this service.

Absent modifications which were explained by ChargePoint’s witness Anne Smart, the Ameren pilot will have a negative impact on competition in the EV charging market. Ms. Smart identified primarily two features of the pilot that are anticompetitive: 1) Ameren’s ability to select a single vendor for the charging stations; and 2) the prices paid by drivers for the charging service will be regulated.<sup>17</sup>

Competition in the EV charging service market is alive and well in Missouri. This is clearly evident from ChargePoint’s presence in the state, as testified to by Ms. Smart, and its ongoing interest in expanding its services even along the interstate corridor that Ameren seeks to serve. ChargePoint supplied recommendations to Ameren as it brought shape and texture to its proposed pilot.<sup>18</sup> It has supplied charging stations to Kansas City Power & Light and as

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<sup>17</sup> Exhibit 300, Smart Rebuttal at page 8.

<sup>18</sup> Tr. 143. Cross examination of Mark Nealon, witness for Ameren:

**Q And I'm gathering that Ameren did not consider making use of the Make Ready model for purposes of the pilot?**



mentioned previously its Missouri customers include a university, a military installation and several car dealerships. Whatever the Commission's decision may be in this case, it must be framed to allow competition to grow and flourish in Missouri.

Ms. Smart confirmed at hearing that if the Commission were to approve Ameren's tariff it would be more difficult for Charge Point to obtain other customers along I-70. She explained that it would be very difficult for ChargePoint to sell a fast charger to a site host if the site host believed it could receive a fast charger installed on that property free of charge from Ameren. She provided this example:

If you owned a parking lot along I-70 and you wanted to put in a fast charger to be a site for fueling along that corridor, and we tried to sell you a charging station outside of Ameren's program at full cost, and then Ameren came over and said, "We'd love for you to be in our program and you won't have to pay anything," you would be much more likely to go with Ameren, in which case we'd be locked out of that corridor.<sup>19</sup>

Of the two features she criticized in the pilot, the power to select a single vendor for the charging stations was the more threatening. Ms. Smart discussed this with Chairman Hall:

**Q So the -- the price that -- that Ameren wishes to charge that -- that are set forth in the tariff are really not the anti-competitive factor that you're concerned about. It's -- it's providing the -- the charging station free of charge that you believe is anti-competitive?**

A That's correct.

**Q So it -- and taking that one step further, -- well, let me ask it this way. So if we were to tariff -- if we were to approve a tariff without a price, you would still have the same anti-competitive concerns?**

A Correct.

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A We did consider that, and, in fact, ChargePoint was -- was the entity that introduced that possibility to us. But in the end, we decided against it.

<sup>19</sup> Tr.319-320

**Q Do you believe that 5, 10, 15 to 20 years from now, price will be more of a factor in – in -- in competition between charging stations?**

A Do you mean price for the charging station or price for drivers for the charging service?

**Q The latter.**

A Not necessarily. Again, the benefits of a charging site tend to be related to what other indirect benefit you receive from that site. So we continue to expect work places to provide employees with free charging or convenience stores to want people to come to use a fast charger there.

Hotels want you to spend the night because they have a fast charger located in their parking lot. Target or Wal-Mart to have you get two hours of free charging so you definitely shop for two hours and fully charge your vehicle before you leave. We expect that.

**Q So you don't -- you don't foresee a situation at some point in time where -- where I'm driving down I-70 in my electric vehicle, and I need to -- to charge my battery. I pull up my -- pull up my cell phone, find out where there are charging stations close by and do a price comparison and go to the one with the cheapest price?**

A Yes. But -- that -- that may occur. I -- I do think that this is the reason that we want to seek clarification on the ability of non-utilities to charge a fee for that charging session. There is some anti-competitive element there if only Ameren is able to -- to do so.<sup>20</sup>

Commissioner Kenney questioned Ms. Smart as well about the price regulation component of the tariff:

**Q What do you think about the -- setting the tariff for -- setting the amount that can be charged for -- on a -- on a -- through the utility whether it's a per hour basis or -- or a per kilowatt basis that the utilities could?**

A We're -- we're concerned with the -- with regulating rates to drivers. I think there has been some discussion today from the Chairman about whether or not to regulate or provide a tariff to all non-utilities to charge drivers at that rate. 14 We do want to make sure there is flexibility built into the pricing models that a charging station owner can set for the drivers unique to that property.

So in the same way right now that a Wal-Mart may want to provide two hours of free charging and then charge an hourly fee afterwards because they

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<sup>20</sup> Tr. 321-322

know you're not shopping in their store after two hours. We need that flexibility built into it so that the indirect benefits of actually hosting a charging station are realized.<sup>21</sup>

ChargePoint is developing plans to invest in charging facilities along the I-70 corridor in Missouri. ChargePoint and Ms. Smart participated in this docket because ChargePoint considers I-70 a key corridor, and does not want to be “locked out of this area for the next three years.” (Tr. 331-332). ChargePoint will not invest in development of the needed infrastructure if Ameren’s pilot is approved. (Tr. 332).

Ms. Smart provided a model by which to resolve the anticompetitive effects anticipated from Ameren’s pilot. To support a competitive EV charging market, she recommended: 1) qualifying multiple RFP respondents to provide charging station equipment and network services in the Ameren pilot; 2) customer (site host) choice in equipment and services; 3) site host “skin in the game;” 4) site host control over pricing to drivers; and 5) consideration for alternative business models.<sup>22</sup>

#### *Multiple Market Participants*

Ms. Smart proposed in rebuttal, just as she discussed with the commissioners at length in hearing, that Ameren should qualify multiple RFP respondents to provide charging station equipment and services in its pilot. Potentially, in the absence of multiple qualified vendors, others would find it impossible to compete until the pilot expires.<sup>23</sup>

#### *Customer Choice*

Once multiple vendors have been qualified and selected, Ameren should allow site hosts in the pilot the authority to choose the vendor and choose the charging station(s) to be installed

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<sup>21</sup> Tr. 326

<sup>22</sup> Exhibit 300, Smart Rebuttal at pages 8-9.

<sup>23</sup> Exhibit 300, Smart Rebuttal at page 9.

on site. Even if Ameren ultimately owns the charging station, this element of customer choice encourages competition among charging station vendors, increases site host awareness of products and services, and allows for real market feedback as to what site hosts want for their customers, who are the drivers who visit those sites and patrons of those sites.<sup>24</sup>

### *Skin in the Game*

The site host should also have “skin in the game” by providing some payment for hosting the charging station on their property. ChargePoint is not opposed to utility ownership of the charging station but in order to reduce overall cost to ratepayers and encourage competition, the Commission should consider, among other alternatives, including a requirement for this pilot that site hosts pay a portion of the station cost or its maintenance to Ameren. Such a requirement aids in ensuring that site hosts have a vested interest in the asset, in customer satisfaction for drivers, and in the pilot program in general.<sup>25</sup>

### *Site Host Control on Pricing*

The “single vendor” component of the Ameren pilot is a preeminent threat to competition. Not as serious is the control of pricing and ChargePoint is not necessarily opposed to the pricing proposed by Ameren in its tariff revision filed on October 7. Ms. Smart notes however,

[i]n order to support competition, the site host, rather than Ameren, should control pricing to drivers who are using the charging service located on their own property. Those drivers are customers of the site and have a relationship with the site host. When site hosts have control of the EV charging pricing, they can align pricing to reflect site-specific considerations and the nature and needs of drivers who use the EV charger. Site hosts that operate multiple sites (some within utility programs, some with their own investment) also have the ability to have consistent charging policies across multiple service territories. For example, global property management companies and retailers with hundreds of sites around the country can achieve customer-centric scalability. Forcing the site host

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<sup>24</sup> Exhibit 300, Smart Rebuttal at page 9.

<sup>25</sup> Exhibit 300, Smart Rebuttal at pages 9-10.

to permanently forfeit the right to have any input into pricing (as well as forfeiting control of the parking space the charger is attached to) will likely have a negative impact on site host interest in the program and on drivers.<sup>26</sup>

Ms. Smart also recommended to the Commission for purposes of the Ameren pilot alternative business models that have been given favorable treatment in other jurisdictions. Specifically, she highlighted cases before the Public Utilities Commission of the State of California concerning Pacific Gas & Electric's Electric Vehicle Infrastructure and Education Program and Southern California Edison's Charge Ready and Market Education Program both of which involve pilots with components that address the risk to competition in the charging service market and have formulated ways to protect that market.

In sum, there are definite risks to competition in the Missouri charging service market if the Ameren pilot is approved without modification. The pilot should be redesigned to reduce or eliminate the anticipated negative impact on the market.

### **3. Costs**

*Should the cost of installing the electric vehicle charging stations be booked below the line or above the line and recovered from ratepayers?*

If the Commission should require redesign of the Ameren pilot to support competition, customer choice, and innovation, ChargePoint would have no objection to Ameren's recovery of the costs of charging stations from its ratepayers. Unless the pilot is redesigned in observation of these principles, Ameren's charging service operations should not be subsidized by its ratepayers.

### **4. Rates**

*Does Ameren Missouri's proposed tariff represent the proper rate design for its EV charging station pilot project?*

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<sup>26</sup> Exhibit 300, Smart Rebuttal at page

ChargePoint contends that competitive forces should set the rate for this service and also invites the Commission to refer to discussion in Section 2. c. above.

#### **D. Conclusion**

The Commission lacks jurisdiction of EV charging services. Assuming it does, which ChargePoint contends it does not, Ameren's pilot program to install six charging islands along the I-70 corridor is anticompetitive. Unless the pilot is modified to eliminate its anticompetitive effects as argued in the above and foregoing, it should be rejected.

Respectfully submitted,

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Certificate of Service

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