Exhibit:

Issues: Response

Witness: Justin D. Wilson

Type of Exhibit: Surrebuttal Testimony

Sponsoring Party: ChargePoint, Inc.

Case No.: ET-2021-0151; ET-2021-0269

Date Testimony Prepared September 13, 2021

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro for Approval of a Transportation Electrification Portfolio

In the Matter of the Application of Evergy Missouri West, Inc. d/b/a Evergy Missouri

West for Approval of a Transportation Electrification Portfolio

Case No. ET-2021-0269

Case No. ET-2021-0151

SURREBUTTAL TESTIMONY OF JUSTIN D. WILSON ON BEHALF OF CHARGEPOINT, INC.

September 13, 2021

1	<u>I.</u>	Introduction and Summary of Recommendations.		
2	Q:	Please state your name.		
3	A:	My name is Justin Wilson.		
4	Q:	Are you the same Justin Wilson who filed Rebuttal Testimony in this proceeding on		
5		behalf of ChargePoint, Inc. (ChargePoint) on August 16, 2021?		
6	A:	Yes, I am.		
7	Q:	What is the purpose of your Surrebuttal Testimony?		
8	A:	The purpose of my Surrebuttal Testimony is to respond to the recommendations made by		
9		Staff in its Rebuttal Report and by Office of Public Counsel (OPC) witness Mr. Geoff		
10		Marke. It is disappointing that Staff and OPC both recommend rejecting Evergy's proposed		
11		Transportation Electrification Portfolio while providing few or no recommendations for		
12		how to improve the programs to address their concerns. My testimony will identify some		
13		of the flaws in their respective analyses and provide some recommendations that, if adopted,		
14		should improve the programs and resolve their concerns.		
15	Q:	Please summarize your recommendations to the Commission.		
16	A:	My primary recommendations remain the same as my recommendations from my Rebuttal		
17		Testimony. As I stated in my Rebuttal Testimony, I recommend that the Commission:		
18		• Approve the Residential Rebate program with the following modifications:		
19		 Direct Evergy to provide all qualifying customers with a \$500 rebate per home; 		
20		O Direct Evergy to allow residential customers that participate in the Residential		
21		Rebate program to hardwire their home chargers and not to require the		

1 installation of NEMA outlets (but allow customers to install NEMA outlets if 2 they prefer); 3 Direct Evergy to develop a list of qualifying chargers for the Residential Rebate 4 program, which should be updated upon request by vendors that introduce new 5 qualifying products. To qualify for the Residential Rebate program, the 6 Commission should require that chargers be ENERGY STAR certified, have a 7 safety certification from UL or another Nationally Recognized Testing 8 Laboratory, and have managed charging capabilities. 9 Approve the Developer Rebate program as proposed. 10 Approve the Commercial Rebate program with the following modifications: 11 Direct Evergy to remove the requirement that site hosts that participate in the 12 Commercial Rebate program share charger utilization data with Evergy; 13 o Direct Evergy to remove the requirement that customers agree to participate in 14 demand response events. 15 • Approve Evergy's proposal to expand the CCN but direct Evergy to allow site hosts at 16 new CCN sites to choose the EV charging hardware and network service provider and 17 to set the prices paid by drivers; 18 Approve the Electric Transit Service rate and Business EV Charging Service rate as 19 proposed.

- In addition to these recommendations, in response to Staff and OPC, I further recommend:
- Direct Evergy to provide information to participants in the Residential Rebate program
 that encourages them to sign up for the applicable residential time-of-use rate and
 educates them on the benefits of doing so.
 - To the extent the Commission remains concerned that Residential Rebate program participants will charge during on-peak hours, the Commission should consider directing Evergy to enroll customers in the applicable residential time-of-use rate with the ability for customers to opt-out as needed. The Commission can also consider directing Evergy to develop a managed charging program for the Commission's consideration in the future.

II. Response to Staff.

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- 12 Q: What will you address in this section of your testimony?
- 13 A: In this section of my testimony, I will respond to Staff's Rebuttal Report, which
 14 recommends rejecting each of Evergy's proposed Transportation Electrification Portfolio
 15 programs except for the Streetlight Corridor pilot program.
- Q: Why does Staff recommend rejecting Evergy's proposed Residential Customer EV
 Outlet Rebate (Residential Rebate) and Residential Developer EV Outlet Rebate
 (Developer Rebate)?
- 19 A: Staff's first concern is a concern that I share and that I expressed in my Rebuttal Testimony; 20 namely, that Evergy has proposed to provide rebates to customers for installing a 240 V

outlet and not for installing EV charging stations.¹ While this arrangement makes sense for the Developer Rebate program because homeowners may not be ready to install charging stations when they first purchase a home, for the Residential Rebate program Evergy should incentivize the installation of EV chargers, not outlets, and should require that chargers be ENERGY STAR certified, smart, and have a safety certification.²

Staff also expresses concerns regarding free ridership, the lack of a requirement for participating in managed charging, the potential for participating customers to increase wholesale energy costs and capacity costs, and the potential for participating customers to decrease their contributions to retail revenue.³

Q: How do you respond to Staff's concern regarding free ridership?

The Staff Report does not explain what exactly Staff's concern is or which customers Staff would consider to be free riders. To the extent Staff is concerned that there will be customers who will install a 240 V outlet but not an actual charging station, such concerns are easily resolved by my recommendation that the Commission direct Evergy to provide rebates to customers for installing qualified chargers and not for installing outlets.

How do you respond to Staff's concerns regarding the potential for participating customers to increase wholesale energy costs and capacity costs and the potential for participating customers to decrease their contributions to retail revenue?

As I will discuss below, I believe Staff's concerns about increasing energy and capacity costs can be addressed through managed charging or time-varying rates. As the Staff

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¹ Staff Report, p. 5.

² ChargePoint Rebuttal, pp. 8-9.

³ Staff Report, p. 15.

Report states, its analysis of wholesale energy cost impacts indicates that "unless customers are dissuaded from continuing to begin charging their vehicles in the early evening or at other times of relatively high demand, the energy costs borne by all customers can be expected to increase" With respect to capacity cost increases, the Staff Report similarly finds that "the impact of incremental costs of capacity on the estimated cost of additional EV charging is heavily influenced by the assumed load shape of the EV charging." In other words, Staff's finding that the Residential Rebate and Developer Rebate programs will increase wholesale energy and capacity costs is based on an assumption that EV drivers will charge during on-peak hours. But, as I will discuss, customers can be dissuaded from charging during on-peak hours and encouraged (and incentivized) to charge during times that it is most beneficial to the grid and other customers.

Staff's focus on the potential for increased energy and capacity costs also misses a key point: a certain amount of EV adoption and increased Level 2 EV charging can be expected to occur *even if the Commission rejects Evergy's programs*. While I do not necessarily agree with Staff's conclusion that increased residential Level 2 charging is likely to increase wholesale energy and capacity costs for all customers, I do agree that EV charging provides more benefits to the grid and all customers when it takes place during off-peak hours. It is therefore preferable for Evergy and the Commission to have some

⁴ Staff Report, p. 11.

⁵ *Id.*, p. 13.

visibility into the growth of Level 2 charging through a utility program to help ensure that increased EV charging load provides as many benefits as possible.

When customers install Level 2 chargers through a program like the Residential Rebate program, their participation in the program provides Evergy with an opportunity to educate them on the benefits of off-peak charging and potentially enroll them in a managed charging program and/or a time-varying rate, which will provide significant benefits to Evergy and all customers. Evergy's ability to educate customers or enroll them in managed charging or time-varying rates would be much more limited if the Commission rejects the Residential Rebate program. Every EV driver that does not participate in managed charging and/or a time-varying rate is a missed opportunity to encourage EV charging to take place during off-peak hours. In short, a well-designed utility program can help ensure that increased EV charging load provides more benefits than it might provide in the absence of the program. I believe that Evergy's Residential Rebate program, as modified by my recommendations, will provide such benefits to all customers.

Q: How do you respond to Staff's concern that participating customers will reduce their contribution to Evergy's revenue?

A: The Staff Report states that, through the technical conference,

Staff came to understand that Evergy's position for the proposed 'Residential Customer EV Outlet Rebate' and 'Residential Developer EV Outlet Rebate programs is that there are currently customers who own EVs who do not use Level 2 charging, and that these customers are consuming approximately 10% more energy than is necessary and are not charging at times that are most beneficial to the grid and other Evergy customers.⁶

⁶ *Id.*, p. 6.

I expect Evergy will clarify its own position in surrebuttal, but in my opinion, encouraging existing EV owners to switch from Level 1 charging to Level 2 charging is only one benefit of the program. I believe a far more important benefit of the residential programs is to encourage customers that drive traditional vehicles to purchase or lease EVs by making it more convenient and affordable to install a Level 2 charger at home. While an existing EV owner that switches from Level 1 charging to Level 2 charging may use somewhat less electricity, someone that currently drives a gas-powered car or truck will use significantly more electricity if they switch to an EV as a result of Evergy's programs. I expect the increased revenue from new EV drivers that "go electric" as a result of Evergy's programs will dwarf the small decrease in revenue from existing EV drivers switching from Level 1 charging to Level 2 charging. These increased revenues should benefit all Evergy customers, including nonparticipating customers, by spreading Evergy's fixed costs across a greater number of kilowatt-hours sold. If most of these increased electricity sales take place during off-peak hours, the benefits to all customers will be even greater. Accordingly, the Commission should disregard Staff's suggestion that the residential programs are not beneficial because they reduce customers' contribution to Evergy's revenue, which is inaccurate for any customer that is encouraged by Evergy's programs to purchase or lease an EV. How do you respond to Staff's concern that customers will charge during on-peak hours?

Staff mentions several times its concern that Evergy has not proposed any mechanisms,

other than education, to discourage customers from charging during on-peak hours.

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However, Staff does not identify or recommend any solutions to its concern. I agree that the Residential Rebate program will provide more benefits if customers are discouraged from charging during on-peak hours and I believe there are several ways to achieve this goal that the Commission should consider.

Perhaps the simplest solution is for the Commission to direct Evergy to encourage customers that receive a Residential Rebate to sign up for Evergy's Residential Time-of-Use rates, Schedule RTOU in Evergy Metro and Schedule MORT in Evergy West. These time-of-use rates provide six-hour "super off-peak" periods everyday between midnight and 6 PM, which is typically ample time for an EV to get a full charge on a Level 2 charger at a significant discount to Evergy's standard residential rates. I expect that most residential customers that participate in the Residential Rebate program will want to sign up for the applicable Residential Time-of-Use rate if Evergy provides them with information about the rate and their potential savings when they receive their rebate. I note that requiring Evergy to only provide rebates for smart chargers as I have recommended will streamline customers' ability to participate in time-of-use rates. Smart chargers allow customers to plug in whenever it is convenient for them, such as when they return from work in the evening, and program the charger to delay charging until off-peak or super-off-peak hours when they might be asleep.

The Commission could also consider directing Evergy to enroll customers that receive a Residential Rebate in the applicable time-of-use rate. However, I would only recommend this solution if the Commission also directs Evergy to allow customers to unenroll whenever they choose. While I expect most customers with Level 2 chargers will

benefit from the time-of-use rates, it is important to remember that the rates apply to the whole home. Some customers may have electric loads that they cannot shift to off-peak hours as easily as they can shift their EV charging. Automatically enrolling customers will likely benefit most program participants, but customers should not be forced to pay more on a time-of-use rate than they would otherwise pay on standard rates.

Q:

A:

Finally, the Commission should also consider directing Evergy to develop a managed charging program in the future and encouraging customers that participate in the Residential Rebate program to participate, such as through an additional incentive. Because EVs are typically parked for long hours at home, many customers are willing to participate in managed charging programs for a modest incentive as long as their vehicle is fully charged when they need it.

As I mentioned earlier, a certain amount of increased Level 2 charging will occur in Evergy's service territories even if the Commission rejects Evergy's proposed Residential Rebate program. However, Evergy's ability to encourage EV drivers to sign up for time-of-use rates will be significantly more limited outside of a program because it will be much harder to identify EV drivers in the absence of an incentive program. Approving the Residential Rebate will provide an efficient means for Evergy to identify EV drivers and encourage more of them to charge off-peak.

What do you recommend with respect to Staff's recommendation to reject Evergy's proposed Residential Rebate program?

I recommend that the Commission approve the Residential Rebate program with the modifications I recommended in my Rebuttal Testimony, including directing Evergy to

provide incentives for the installation of a qualifying EV charging station (*i.e.*, a charger that is smart, ENERGY STAR certified, and has a safety certification) rather than just an outlet. I further recommend that the Commission direct Evergy to provide information to program participants encouraging them to sign up for the applicable residential time-of-use rate. To the extent the Commission remains concerned that program participants will charge during on-peak hours, the Commission should consider directing Evergy to enroll customers in the time-of-use rate with the ability to opt-out as needed and/or directing Evergy to develop a managed charging program in the future.

Q: Why does Staff recommend rejecting Evergy's proposed Commercial EV Charger Rebate (Commercial Rebate) program?

Staff expresses concerns regarding the cost of potential new distribution facilities needed to support new commercial EV chargers and a general concern that "additional work is needed to refine the parameters of each program that may be authorized to – among other things – reduce free ridership, avoid load building, and optimize customer behaviors to avoid the need for additional distribution, transmission, or generation capacity or assets." The Staff Report also expresses concern that "Evergy's cost/benefit model is based on more-certain upfront costs being off-set by more-speculative [sic] eventual assumed benefits."

⁷ Staff Report, pp. 16-17.

⁸ *Id.*, p. 18.

Q: How do you respond to Staff's concerns?

A:

While I am not an expert on benefit-cost analyses, it is my impression that the ICF studies of the cost effectiveness of increased EV adoption in Evergy's service territories are robust. The Staff Report makes some generalized arguments about Evergy's assumptions but does not cite to any specific aspects of either Evergy's or ICF's analyses that it finds lacking. In fact, the Staff Report fails to engage with the ICF studies at all. Accordingly, I recommend that the Commission attribute far more weight to the ICF studies, which performed rigorous quantitative analyses, than Staff's generalized arguments. Further, Staff's concern that the costs of the programs are certain and upfront while the future benefits are more speculative applies to virtually any utility investment. Rather than worry about its inability to predict the future with precision, the Commission should focus on ensuring that Evergy's programs are designed in such a way that they can be *reasonably expected* to maximize benefits to customers.

Staff states that its "rough analysis of the information provided by Evergy but reflecting reasonable assumptions concerning rate case timing indicates that the program would first be not detrimental to non-participating Evergy Metro ratepayers around the year 2030." Staff does not provide its "rough analysis" or state what its "reasonable assumptions" are, so I cannot evaluate its analysis. However, assuming that Staff's analysis is accurate, and assuming that the phrase "not detrimental" simply means that benefits

⁹ *Id*.

exceed costs, 2030 strikes me as a reasonable payback period for programs that would last for five years and begin in late 2021 or 2022.

Finally, though it is not clear from Staff's high-level description of its analysis, I am concerned that Staff has not taken a holistic view of the potential benefits of the programs. For example, the Staff Report states, "the [Commercial Rebate] program as proposed relies on unreasonable assumptions of the rate revenue to be provided by participating customers."¹⁰ In its analysis of the Clean Charge Network expansion proposal, Staff similarly points out that existing CCN "EV chargers currently served under Schedule CCN are not generating revenues that are sufficient to cover the revenue requirement caused by Schedule CCN's infrastructure and related costs." 11 When evaluating the Commercial Rebate program and Evergy's proposed CCN expansion, I recommend that the Commission consider the total additional revenues that will result from increased EV adoption. Publicly available chargers at commercial locations will help encourage customers to adopt EVs but most customers do most of their charging at home. Accordingly, the revenue that Evergy earns at a particular commercial charging site or even from all commercial charging sites supported by the Commercial Rebate program should be considered only one data point in the Commission's determination of the cost effectiveness of the programs. The Commission should instead evaluate the programs by looking to the total increased revenue that will result from increased EV adoption as a whole in Evergy's service territories.

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¹⁰ *Id*.

¹¹ *Id.*, p. 21.

1 Q: What do you recommend with respect to Staff's concerns with the Commercial 2 Rebate program? I recommend that the Commission disregard Staff's analysis, which is incomplete and 3 A: 4 based on generalizations, and approve the Commercial Rebate program with the 5 modifications I recommended in my Rebuttal Testimony. Specifically, the Commission 6 should direct Evergy to remove the requirement that site hosts that participate in the 7 Commercial Rebate program share charger utilization data with Evergy and direct Evergy 8 to remove the requirement that customers agree to participate in demand response events. 9 Q: Do you wish to comment on Staff's recommendation that the Commission reject 10 Evergy's proposed Electric Transit Service (ETS) rate and Business EV Charging 11 Service (BEVCS) rate? 12 A: I understand that the issue of whether Evergy can propose new rates outside of a rate case 13 is a legal issue and ChargePoint will address that question in legal briefing. With respect 14 to the design of the rates, Staff's concerns are centered on the fact that Evergy made 15 assumptions about the load factor and other characteristics of customers that would take 16 service on these rates. But Evergy and the Commission must always make assumptions 17 about the characteristics of an "average customer" when designing rates, always knowing 18 that most customers will differ somewhat from the assumed average. Given anticipated 19 customer enrollment in these rates in the next few years, I believe it is reasonable for 20 Evergy to have designed the rates to be revenue neutral for a "typical customer" and to 21 revisit the rates, if needed, in Evergy's next rate case.

III. Response to OPC.

- 2 Q: What will you address in this section of your testimony?
- 3 A: In this section of my testimony, I will respond to the Rebuttal Testimony of Dr. Marke on
- 4 behalf of the OPC.

- 5 Q: Will you address all of the concerns and arguments raised by OPC?
- 6 A: No. Dr. Marke raises a wide variety of issues in his testimony that are only tangentially 7 related to Evergy's program proposals, such as federal tax credits for EVs, Winter Storm Uri, and Evergy's past AMI investments. 12 Dr. Marke also confesses that he is skeptical 8 about the social and environmental value of EVs generally. 13 As a result, I believe that 9 10 much of Dr. Marke's wide ranging discussion is not relevant to this proceeding. I 11 recommend that the Commission focus on the issues before it in this proceeding, which are 12 Evergy's proposed incentive programs, education and marketing proposal, and commercial 13 EV charging rates.
- 14 Q: What is OPC's primary concern with respect to Evergy's proposed programs?
- 15 A: My understanding of OPC's analysis is that it does not believe Evergy's ratepayers should
 16 be asked to fund the programs given the cost of the programs and the potential for rate
 17 increases caused by other factors. OPC also believes that the benefits of Evergy's CCN
 18 investments have not come to fruition and therefore additional investments in customer19 owned and Evergy-owned chargers is not justified.

¹² Rebuttal Testimony of Geoff Marke, pp. 6, 14, and 15, respectively.

¹³ *Id.*, pp. 3-4 and 7.

Q: How do you respond to these concerns?

Similar to Staff's analysis, OPC does not conduct an actual benefit-cost analysis and fails to engage with the only quantitative cost effectiveness analyses in the record of this proceeding, which appear in the ICF studies attached to Evergy's application as Appendix C. OPC focuses on the cost of Evergy's proposed programs but does not recognize or acknowledge that this spending is an *investment* that can be expected to yield future benefits to all customers. As cited earlier, the ICF studies found that increased EV adoption would provide net benefits to all customers even without considering "the potential benefits of improved utility load factor and avoided distribution costs through improved asset management associated with managed charging and other efforts to shift EV charging activity to off-peak periods." As also discussed earlier, even Staff's "rough analysis" found that non-participating customers would begin realizing benefits by 2030. OPC recommends denying the programs so that ratepayers are not asked to fund them, but the effect of denying the programs would be to deny customers the benefits that increased EV adoption will provide.

Like Staff, OPC does not offer any recommendations to resolve its concerns (other than denying the programs) or for improving Evergy's proposed programs. OPC expresses similar concerns as Staff regarding free ridership and the potential for customers to charge during on-peak hours. I have addressed these concerns above and believe that my

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¹⁴ Evergy TEP, Appendix C, p. 1.

recommendations would resolve OPC's concerns as well as Staff's and would increase the 1 2 benefits that the programs provide to all customers. 3 What do you recommend with respect to OPC? Q: 4 A: I recommend that the Commission reject OPC's recommendation to deny Evergy's 5 proposed programs. The recommendations I made above in addressing Staff's concerns 6 would address many of OPC's concerns and improve the effectiveness and increase the 7 benefits of the programs. 8 IV. Conclusion and Recommendations. 9 Please summarize your recommendations for the Commission. Q: 10 As stated at the beginning of my testimony and in my Rebuttal Testimony, I continue to A: 11 recommend that the Commission: 12 Approve the Residential Rebate program with the following modifications: 13 Direct Evergy to provide all qualifying customers with a \$500 rebate per home; 14 Direct Evergy to allow residential customers that participate in the Residential Rebate program to hardwire their home chargers and not to require the 15 16 installation of NEMA outlets (but allow customers to install NEMA outlets if 17 they prefer); 18 Direct Evergy to develop a list of qualifying chargers for the Residential Rebate 19 program, which should be updated upon request by vendors that introduce new 20 qualifying products. To qualify for the Residential Rebate program, the 21 Commission should require that chargers be ENERGY STAR certified, have a

1	safety certification from UL or another Nationally Recognized Testing
2	Laboratory, and have managed charging capabilities.
3	Approve the Developer Rebate program as proposed.
4	• Approve the Commercial Rebate program with the following modifications:
5	O Direct Evergy to remove the requirement that site hosts that participate in the
6	Commercial Rebate program share charger utilization data with Evergy;
7	O Direct Evergy to remove the requirement that customers agree to participate in
8	demand response events.
9	• Approve Evergy's proposal to expand the CCN but direct Evergy to allow site hosts at
10	new CCN sites to choose the EV charging hardware and network service provider and
11	to set the prices paid by drivers;
12	• Approve the Electric Transit Service rate and Business EV Charging Service rate as
13	proposed.
14	In addition to these recommendations, my Surrebuttal Testimony makes the following
15	further recommendations:
16	• Direct Evergy to provide information to participants in the Residential Rebate program
17	that encourages them to sign up for the applicable residential time-of-use rate and
18	educates them on the benefits of doing so.
19	• To the extent the Commission remains concerned that Residential Rebate program
20	participants will charge during on-peak hours, the Commission should consider
21	directing Evergy to enroll customers in the applicable residential time-of-use rate with
22	the ability for customers to opt-out as needed. The Commission can also consider

- directing Evergy to develop a managed charging program for the Commission's
- 2 consideration in the future.
- 3 Q: Does this conclude your testimony at this time?
- 4 A: Yes.

DECLARATION OF JUSTIN D. WILSON

County of Denver)	
)	SS
State of Colorado)	

Justin D. Wilson, being duly sworn, deposes and says that the information contained in the attached Surrebuttal Testimony of Justin D. Wilson on behalf of ChargePoint, Inc. was prepared by him or under his direction and direct supervision.

Under penalty of perjury, I declare that the foregoing is true and correct to the best of my knowledge and belief.

ChargePoint, Inc. (ChargePoint).

Justin D. Wilson