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MISSOURI PUBLIC SERVICE COMMISSION

CASE NOS.: ET-2021-0151 / ET-2021-0269

SURREBUTTAL TESTIMONY

OF

CHARLES A. CAISLEY

ON BEHALF OF

EVERGY METRO, INC. D/B/A EVERGY MISSOURI METRO AND EVERGY MISSOURI WEST, INC. D/B/A EVERGY MISSOURI WEST

Kansas City, Missouri
September 2021

SURREBUTTAL TESTIMONY

OF

CHARLES A. CAISLEY

Case No. ET-2021-0151/0269

Q: Please state your name and business address.

A: My name is Charles A. Caisley. My business address is 1200 Main, Kansas City, Missouri 64105.

Q: By whom and in what capacity are you employed?

A: I am employed by Evergy Metro, Inc. I serve as Senior Vice President Marketing and Public Affairs, as well as Chief Customer Officer for Evergy, Inc., Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro") and Evergy Kansas Metro ("Evergy Kansas Metro"); Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West"); and Evergy Kansas Central, Inc. d/b/a/ Evergy Kansas Central ("Evergy Kansas Central").

Q: Are you the same Charles A. Caisley who previously filed Direct testimony in this matter concurrently with the "Evergy Transportation Electrification Portfolio Filing Report" ("Report") filed in this proceeding with the Application? [1]

A: Yes.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of Evergy Missouri Metro and Evergy Missouri West (collectively, "Evergy" or "Company").

[1] The Report was initially filed with the Application on February 24, 2021 and updated May 7, 2021. Supplemental information was filed with the Commission on July 16, 2021.

Q: What is the purpose of your surrebuttal testimony?

A: The purpose of my testimony is to respond to policy positions taken by the Missouri Public Service Commission ("Commission") Staff and the Office of the Public Counsel ("OPC") as presented in their rebuttal testimony filed on August 16, 2021.

Q: Please provide a brief overview of your surrebuttal testimony.

A: First, I will address the arguments of Staff[2] and OPC that Evergy should not be expanding its participation in transportation electrification ("TE") programs. I will focus on the policy rationale and implications that Evergy's proposed TE programs are needed in Missouri. The last non-electric sector of the world economy is surface transportation—which today is primarily fueled by petroleum derivatives. That is about to change in dramatic fashion for a number of reasons:

1) Auto Original Equipment Manufacturers ("OEM's") have invested billions upon billions of dollars in electric vehicle ("EV") research and development ("R&D"), factory redesigns of existing internal combustion platforms, battery and storage systems, as well as supply chains and vehicle delivery systems all towards significantly increasing the number of EVs sold as a percentage of their annual sales by 2030. This commitment has more than tripled the amount of EV models available in the United States since 2015 and is pushing the cost of EVs down on an annual basis.

2) Consumer attitudes have significantly evolved, and customers are considerably more knowledgeable and interested in EVs than when they were when Evergy's Clean Charge Network ("CCN") was first introduced in 2015. Consumers are

[2] The Staff does not oppose the limited expansion of the CCN to include 50 stations contemplated by the Streetlight Corridor program. (Staff Report, p. 26)

very interested in EVs. In addition, consumers are increasingly more concerned about the carbon footprint they create by driving fossil-based cars.

3) Governments around the world and in the U.S. at both the state and federal levels have intervened with both financial incentives and tailpipe emissions mandates, all of which push EVs from a policy perspective.

4) The COVID-19 pandemic disrupted many aspects of the global supply chain causing consumers and OEMs to place greater emphasis on locally manufactured and derived energy—or electricity.

According to a study published by Deloitte in July of 2020, the global EV forecast is a compound annual growth rate of 29 percent that is expected to be achieved over the next ten years. Locally, Evergy's large energy customer, Ford Motor Company, has stated it expects between 40 and 50 percent of its sales to be EVs by 2030, with its total investment in EVs to top $30 billion through 2025—and this is just one example. General Motors announced earlier this year that it had the aspirational goal of exclusively selling vehicles that operated on an electric platform by 2035.

Simply put, the growth of EVs over the next 5, 10, and 20 years is inevitable; it is a tidal wave already heading our way. We are poised now to decide whether we will surf it or drown in it. Which way we go will be determined by the policy the Commission adopts in this docket, and utility involvement is key to achieving a favorable outcome for Missouri customers. I will explain in my testimony and in the rest of the Company witnesses' surrebuttal testimony why we (collectively, Evergy and the Commission) need to do more to adequately address the coming growth in electrified transportation if we are to maximize the benefit for all customers, minimize potential cost impacts and have a

consistent and effective policy framework for all stakeholders to operate within. In addition, I explain why the outright rejection by Staff and OPC of Evergy's proposal is untenable and in the near future will actually be detrimental to electric rates and Missouri consumers.

I will also address some of the points raised by Staff and OPC witnesses in opposition to Evergy's specific proposals in this proceeding. In particular, I will address the concerns raised by Staff and OPC that the federal government is expected to appropriate funds for the expansion of EV charging networks, making Evergy's plans to expand its CCN unnecessary and duplicative.

II. RESPONSE TO TESTIMONY

(1) Policy for Missouri

Q: What has been the general response of the other parties to Evergy's Transportation Electrification ("TE") proposal?

A: Staff and OPC are not supportive of Evergy's proposal and seem to be more focused on raising issues related to TOU rates, arrearages that resulted from the pandemic, or costs that resulted from the impact of Winter Storm Uri.

Q: What are the main reasons Staff and OPC give for rejecting important aspects of the TE portfolio?

A: For the most part, their rejection stems from a policy argument – that a utility should not take an expanded role in the promotion of TE. OPC, and Staff to a lesser degree, assert that the utility (and the Commission) should stay on the sidelines and not be an active partner with our customers during this dynamic revolution that is occurring in TE. They seem to believe the best course of action is to allow TE to advance pursuant to market

forces, but they don't address what happens if that approach falls way short for Missouri. They also don't acknowledge utility involvement across the country that is being accepted by other commissions, additional costs and impacts to the system that may be borne by Missourians as a result of such a reactive approach, or the value that utility involvement can bring in aiding efficiency in service for TE and the rate benefits all Missourians will experience with more rapid TE adoption.

Q: Why is this an unwise policy position for the Commission to follow?

A: Because it is not in the best interest of Missouri or Evergy's customers. TE is inevitable; it is the future, and it provides both challenges and opportunities in terms of grid management. The question at this point is whether the Commission will address TE in a way that makes it an Opportunity for Missouri rather than a Risk. As an Opportunity, deployment and growth of TE and its related infrastructure would be managed by the utility and Commission so that it adds value to our customers and citizens. If the Commission imposes a "utility hands-off" policy, as Staff and OPC recommend, then deployment potentially occurs in a manner that causes the utility to incur additional costs and puts upward pressure on customer rates. Essentially, such a policy will be imposing only the Risks of TE on our customers and citizens at a time that when we should make every effort to reduce such risks and capture the benefits.

Q: Please explain.

A: The TE train is leaving the station and as it unfolds it will change the demand placed upon Evergy's system. Ford Motor Company originally announced investment of $22 billion in electrification through 2025 and has since boosted planned spending to $30 billion, as I referred to above. This includes investment in domestic manufacturing capacity. Of note,

Ford is investing $100 million in its Kansas City Assembly Plant and adding 150 full-time jobs to manufacture the electric E-Transit van. Ford has also invested $500 million in Rivian, an EV start-up. At a global level, Ford expects 40% of sales to be battery electric vehicles by 2030.[3]

Additionally, General Motors ("GM") raised its investment in electric and autonomous vehicles to $35 billion, up from the $27 billion it had announced in late 2020. Targeting elimination of tailpipe emissions from new light-duty vehicles by 2035, GM plans to offer 30 new EV models worldwide by 2025.[4]

Similarly, Stellantis, the company resulting from the merger of Fiat Chrysler and PSA, plans to invest $35.5 billion by the end of 2025 to expand its portfolio of electrified vehicles (fully electric or plug-in hybrid).[5] And package delivery companies including Amazon, UPS, FedEx and DHL have announced plans and goals related to electrifying their fleets. For example, Amazon has agreed to purchase 100,000 Rivian all-electric delivery vans.[6]

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[3] Ford, "The Ford Electric Vehicle Strategy: What you Need to Know," *https://media.ford.com/content/fordmedia/fna/us/en/news/2021/05/19/the-ford-electric-vehicle-strategy--what-you-need-to-know.html*.

Also, https://www.theverge.com/2021/5/26/22454728/ford-plus-pro-electric-explorer-suv-investment and *https://www.forbes.com/sites/samabuelsamid/2021/06/16/first-of-four-electric-lincoln-models-coming-in-2022/?sh=2bb01c1f5931*.

Global stat*: https://apnews.com/article/electric-vehicles-technology-business-d874b87e8b7f9e2aa25330b31040c8d4*.

See also, Evergy's Application, "Evergy Transportation Electrification Portfolio Filing Report," Revised May 2021, pp. 6, 10, 11.

[4] See *https://www.linkedin.com/pulse/accelerating-our-commitment-all-electric-future-mary-barra/* and *https://www.greencarreports.com/news/1131102_gm-s-all-electric-pledge-no-tailpipes-by-2035-net-zero-carbon-by-2040*.

[5] See *https://www.cnn.com/2021/07/08/cars/stellantis-electric-vehicle-investment-strategy/index.html*.

A key factor determining the point at which EVs will achieve cost parity with ICE vehicles (based on total cost of ownership, without incentives) is the cost of batteries. BloombergNEF reports that lithium-ion battery prices fell 89% from 2010 to 2020. The volume-weighted average cost is currently at $137/kWh and continuing to fall.

See also, BloombergNEF, "Electric Vehicle Outlook 2021," 2020, *https://about.newenergyfinance.com/electric-vehicle-outlook/*.

[6] *https://www.npr.org/2021/03/17/976152350/from-amazon-to-fedex-the-delivery-truck-is-going-electric*.

Make no mistake; TE is coming to our country, our state and our economy. If the utility is involved in the roll-out of TE, it can implement charging standards and protocols that will help manage this expansion and control the usage of its grid. This will reduce the need for additional investment to meet TE demand by more efficiently using the utility's existing assets. Consistent with the Regulatory Assistance Project ("RAP")'s presentation in the EW-2019-0229 workshop[7] and as reinforced in its presentation to the Kansas Corporation Commission on January 5, 2021, "EV load must be managed effectively, otherwise all ratepayers will share in the expensive costs of upgrading and maintaining the distribution system to accommodate increased load on the system."[8] While RAP's assertion is undeniable over the long term, it should be viewed through the lens of today. As noted in testimony by Mr. Voris regarding Evergy's decision to not require Residential Rebate Program participants to enroll in TOU, EV penetration in Evergy's Missouri service territory is currently about 0.5%. This affords Evergy the opportunity to pursue time-bound, modestly sized educational opportunities such as the proposed pilot programs to better equip Evergy to manage the grid well beyond this filing.

Our involvement with our customers has always been important and TE is no different. We need to understand a customer's load impacts and changes for us to manage the grid the most effectively. Otherwise, customers' loads can negatively impact the design of the system and could actually increase costs to all customers. Visibility is not only necessary but critical to planning and allows for us to perform long-term planning. Costs are avoided and rates benefit.

[7] RAP Presentation at EW-2019-0229, March 21, 2019.
[8] See **Schedule CAC-1**, Page 7 of 13 (RAP Presentation to KCC, January 5, 2021).

Q: Is it unusual for the utility to be involved in something like the development of the TE marketplace?

A: Not at all. First, I'd like to point out that Evergy is constantly managing its grid on a lesser scale than what we now expect in the TE market. Load is coming on and off the grid all the time as our customers' operations and usage characteristics change. Evergy is involved in that process and controls it to the extent possible so that our existing system most efficiently meets the changes in demand without the need for additional investment in generation, transmission and distribution facilities. The utility has the data and customer relationships that allow this to occur in an efficient manner.

That said, TE is a whole new segment of the American economy that is on the verge of burgeoning growth. We have not seen this scale of change in the electric industry since its inception approximately 100 years ago. Back then, when the electricity marketplace was in its infancy, utility companies had a major role in marketing and expanding the reach of electrification, to the ultimate benefit of everyone who eventually became utility customers. Utility involvement in the early days of electrifying the economy had many facets. Utilities had retails stores, customer education campaigns that explained how to use electricity, they offered rebates on household items that were electrified and some utilities even manufactured and distributed products that ran on electricity. The benefit of that involvement was to take a system that was extremely capital intense and benefit all consumers through beneficial load growth that made the unit cost of electricity and expanding grid operations more efficient. Once electricity was well understood and segments of the economy were fully electrified, most utility companies stopped marketing consumer products, but the market and the demand that was created benefitted all electric

customers. Now, we stand on the precipice of the last part of the economy that is not electrified. This is where we are now in the evolution of TE. I can only reiterate that our involvement is important, historically consistent and visibility is critical.

Q: What about the utility's proper role in stimulating a non-regulated marketplace?

A: While managing the impact of the growth of TE on the grid is a primary obligation of Evergy, supporting such growth is also an appropriate role of the utility. As shown by the cost effectiveness evaluation contained in our application, growth of TE in our territory provides very real financial benefits to our core customers. More efficient use of our existing assets so that more kilowatt hours are sold without corresponding increases in infrastructure investment means lower per kwh rates.

Q: Is the potential investment in TE by non-utility entities sufficient to cause these same benefits to flow to Evergy's customers absent Evergy's involvement?

A: No, for three reasons. First, non-utility entities have a completely different business model than the utility. They will invest where they can make a profit as quickly as possible without consideration of the impact on the existing grid, which can easily result in their operations triggering the need for more investment by the utility which goes into the rates of the utility's customers. Their business model also does not consider equitable access for Missouri customers as Evergy intends to do. While the individual self-interest of non-utility entities may result in them foregoing investment in underserved areas of the state, Evergy purposefully intends to extend TE into those areas. I discuss this in a little more detail below.

Second, non-utility providers will not invest as quickly without Evergy's involvement. Although Evergy supports a hybrid of both utility and private investment of

charging stations, as Mr. Voris details in his testimony, private investment is typically focused on a narrower range of goals and partnerships with more profitable sites, such as retail establishments. Our filing is focused on filling in the gaps in the market and serving underserved communities.

Third, it is the utility that is driven by climate concerns, much more so than most non-utility private investors. Again, this is predominantly because non-utility entities seek the highest and fastest profit; they are not charged with providing electric service in a manner that is in the best interests of Evergy's customers. This is not a criticism of their business model, but rather, recognition of the difference. Evergy considers the societal impacts of its decisions on the people it serves, and that consideration weighs in favor of implementing and growing TE in Missouri.

Q: Are the benefits of utility involvement in TE recognized throughout the country now?

A: I believe they are. Consider that as of early 2021, the number of states that had approved transportation electrification filings had grown to more than 30. It is further noteworthy that 46 states and the District of Columbia currently provide incentives for EVs or charging infrastructure.[9] This level of activity demonstrates broad recognition that TE and grid management are inextricably linked and that the utility is the entity responsible for and able to manage its grid. To that end, Evergy has proposed modestly sized, time-bound pilot programs to further Evergy's ability to manage EV load and realize benefits to all customers over the long term.

[9] See pg. 11 of the Report initially filed with the Application on February 24, 2021 and updated May 7, 2021. Supplemental information was filed with the Commission on July 16, 2021.

Q: If the Commission agrees that the utility should play an important role in the advancement of TE in Missouri, how can the Commission make sure the level of investment proposed by Evergy is appropriate?

A: The cost effectiveness evaluation provides important information in this regard, as well as Evergy's representation that it plans to take only a temporary role until stronger third-party investment emerges. The scope of Evergy's proposal in this case is reasonable compared to the benefits it will achieve. Evergy is proposing an impactful but very small dollar investment, in relation to our system, that will allow us to capture benefits from the inevitable growth of TE, turning it into an Opportunity for our customers and reducing their costs. Our proposed budget is the minimum needed to capture these benefits; reducing or eliminating it as Staff and OPC have done will negate our ability to achieve meaningful results.

Q: Has the utility industry faced a similar occurrence in the industry recently that was not properly managed?

A: I believe the recent growth of solar distributed generation is a great example of what can happen when a phenomenon that affects the utility's system is allowed to happen to the utility's system without proper management by the utility (who knows and understands its system and customers' demands better than anyone), and the Commission (the entity with the power to regulate in a manner than best protects customers from the negative consequences of such occurrences). Had the proliferation of distributed generation been addressed proactively at an early stage, many of the costs it is imposing on our system now and in the near future as it continues to expand, could have been avoided. For example, California experienced system challenges due to the high penetration of rooftop solar that

occurred rather quickly in the state. Generation and grid resources were required to respond to steeper peak ramps with the development of more flexible resources as well as changes in resource availability and over generation. Distribution systems face potential infrastructure challenges given reverse power flows and voltage fluctuations that result in a great degree of wear and tear on equipment. Some key findings from the California experience include the need for an adequate policy framework, anticipating potential infrastructure challenges, and to target incentives toward cost-effective solutions[10]. Equating this scenario to TE growth, without proactive policy higher costs will translate into higher rates for customers, but this impact can be mitigated by a proactive approach before there is a significant penetration of EVs in Missouri.

Finally, Evergy has no long-term business model incentive in operating EV charging to the exclusion of other non-regulated interests. Any entity that places a charging station in Evergy's service territory will most likely be purchasing some or all of the electricity that flows through that station from Evergy. Our interest is in customer education, equal and fair access for areas that might not be first on the list for investment by non-regulated entities and in realizing quicker, while maximizing the grid, cost benefits of TE for all customers—whether they own an EV or not.

Q: Why will third-party charging station providers not reach underserved areas of Missouri any time soon without utility involvement?

A: Competitive companies seek to make a profit off their endeavors quickly, so they will tend, initially, to be focused on deployment in areas of the State where revenues will be higher from inception. These generally are going to be higher population and higher income areas

[10] *https://brattlefiles.blob.core.windows.net/files/16774_case_study_-_the_impact_of_solar_energy_policies_in_california_and_lessons_learned.pdf*

where more electric vehicles are located. Evergy's proposal includes deployment of stations and offering of rebates to other areas that are more likely to include lower income citizens and more rural territories. Competitive companies will "cherry-pick" the more profitable locations in Missouri, creating "haves" and "have nots" for TE services and opportunities, much like what occurred in broadband deployment. Evergy's plan seeks to fill that gap and close that divide. We have seen this model for building out capital intense infrastructure multiple times in the last 100 years and in multiple industries. This model gave rise to the need for electric cooperatives, it was seen in the telephone industry and more recently in high-speed internet and broadband deployment (an issue that the state of Missouri is still grappling with today). By a reasonable level of utility involvement in TE, this issue can be mitigated or eliminated.

Coming full circle, I want to emphasize again that increasing the utilization of our system and assets in a manner that uses existing capacity as much as possible and does not cause unnecessary additional investment is good for Evergy and its customers. As such, the growth in the TE industry that will result from non-utility companies entering the market in Missouri and spurring growth in EV usage means additional revenues for Evergy. It is good for Evergy's core business and customers, and that is the endgame Evergy seeks in this docket.

Q: What do you see as the primary driving forces behind Evergy's investment in TE at this time?

A: EV adoption is directly related to Evergy's operations. Early adoption is beneficial because it provides information, incremental revenues that will benefit all customers, and decreases

the slope of the adoption "hockey stick". Over the long term, Evergy will be increasingly focused on grid impact mitigation rather than support for new EVs. That is our plan.

Q: On what does Evergy base its determination that there will be increased demand for EVs in its Missouri jurisdictions?

A: From the beginning, the CCN was expected to support EV adoption consistent with EPRI's medium adoption scenario. The growth Evergy has observed through the years has largely been consistent with this adoption scenario, which was originally defined in 2015 and was most recently revised in 2020. A comparison of the 2015 and 2020 EPRI projections shows the growth trend in Evergy's Missouri and Kansas Metro territories has shifted about one year since EPRI's 2015 projections. For example:

- The actual number of EVs at year-end 2020 was 96% of the year-end 2019 forecast [EPRI 2015]
- The projected number of EVs at year-end 2023 [EPRI 2020] is 98% of the 2022 forecast [EPRI 2015]

Perhaps the most compelling information supporting increased demand for EVs are the announcements by major vehicle manufacturers that their production will be transitioning from internal combustion engines to EVs over the next decade, as described in more detail above. In addition, there is data projecting cost reductions to produce EV batteries, and there are pro-EV policies being adopted at state and federal levels. All of these factors will drive increased demand in EVs.

Q: Staff is recommending rejection of Evergy's Application in part because Staff asserts that Evergy has not provided sufficient evidence to support the full CCN expansion and related programs. Is Staff correct?

A: No. First, I think the Commission should consider Staff and OPC witnesses' comments and analysis in light of their underlying premise that a utility should not be significantly expanding its involvement in the programs proposed in Evergy's TE Application because, in their opinion, it is not part of providing essential electric service.[11] Their belief in that over-arching policy position colors their opinion throughout their testimony.

Staff and OPC witnesses fail to see how the proposed rebates, EV rates and the CCN are all inter-related to a customer understanding, purchasing and owning an EV. Evergy has performed specific EV customer research; Evergy received stakeholder letters in support of our electrification transportation filing; and Evergy interacts almost daily in some form or fashion with our customers on EVs.

Evergy has developed an award-winning website and marketing materials for its CCN[12] and customers have responded very favorably to the information that Evergy has provided to its customers that further educate them on EVs. Since implementation of the CCN website in 2015, Evergy continues to see increased traffic to the CCN website. In 2020 alone, Evergy realized over 85,000 pageviews to its CCN website with over 41,000 users. Evergy has created marketing campaigns to engage with its customers that provide customers information that is right for where they are in their EV car buying journey -from

[11] Dr. Geoff Marke's Rebuttal Testimony states: "I believe that any request premised on the use of captive ratepayer funds that results in the needless build-out of rate base for nonessential service that have historically benefited a largely affluent minority of customers should give the Commission pause." (Marke Rebuttal, p. 2) See also Staff Report, p. 31.

[12] Report, Section 1.1, Page 4.

learning about an EV, to being in the market to buy an EV, and as an EV driver. The CCN website provides information to customers on "all things EV", and it also provides information on EV tax incentives and dealer promotions. It is incumbent upon Evergy to educate its customers about EV cars and charging.

This is analogous to the 1950's All-Electric House built by KCP&L and still on display at the Johnson County Arts and Heritage Center in Overland Park. The All-Electric House served to educate customers about electricity usage in their homes from newer electric appliances and "gadgets". Even more recently in the 2007 timeframe, in conjunction with the Green Impact Zone SmartGrid Demonstration Project ("SGDP"), KCP&L partnered with the Metropolitan Energy Center ("MEC") to advance the idea for Project Living Proof ("PLP"). PLP was a demonstration house showcasing the promotion of the development of sustainable communities and the deployment of existing and emerging renewable energy and energy management technologies. The demonstration house allowed customers to experience the future of energy and see first-hand the new MySmart tools and products available to customers in the SGDP area. Such products included smart products (meter, portal, display, thermostat), rooftop solar, battery storage and EV charging stations.[13] Both of these examples where Evergy took an active role in educating customers on new technologies were a benefit to our customers then, and the TE programs in this filing will similarly benefit our customers now.

To say that Evergy did not demonstrate the need for rebates or the CCN expansion is inaccurate and should be dismissed. The Evergy Report repeatedly reinforces the need for Evergy to be involved in its customers' adoption of electrified transportation.

[13] https://www.osti.gov/servlets/purl/1223441, "KCP&L Green Impact Zone SmartGrid Demonstration Final Technical Report", Version 2.0, May 22, 2015.

Specifically, we included letters of support from several customers and organizations in our service territory[14] who recognize the benefit of our filing and appeal to the Commission for its approval. Our customer facing teams also have numerous discussions that range from residential to business – whether it is a residential customer attending an Evergy sponsored EV driver event and learning about the benefits of EVs, or a business customer who is inquiring about how to meet their sustainability goals through fleet electrification, for example. In addition, Evergy has developed several videos that are offered on our website that include narratives from actual customers who have adopted EVs to share their positive experience[15].

Understanding and evaluating what customers want and listening to customers is critically important, especially when the emerging technology significantly impacts Evergy's operations, costs and resource planning needs. It is incumbent on Evergy to provide customers with information and rebates to encourage them to make the right decision with respect to EV charging so that a negative grid impact is minimized and the positive impacts of EVs can be encouraged, including downward pressure on rates.

Q: Both Staff witness Claire Eubanks (Staff Report, p. 28), and OPC witness Dr. Geoff Marke (Marke Rebuttal, p.12) recommend that the Commission deny Evergy's Application, in part, because the federal government has plans to provide subsidies for the development of EV charging stations. Do you have a response?

A: Yes. While Evergy is hopeful that the federal government will make a substantial investment in promoting TE throughout the country, it is uncertain at this time what level

[14] Report, Appendix F.
[15] Residential: https://cleanchargenetwork.com/why-drive-electric/driver-profiles/; Fleet: https://www.youtube.com/watch?v=mGNhUaewC2c

of funding, if any, the Congress will provide for EV charging stations in Missouri. Evergy believes that its proposal in this proceeding as well as the federal government support for TE will be critical to achieve the underlying public policy goals of TE.

Q: Staff witness Robin Kliethermes expressed concern that without tariff provisions limiting the installation of a new EV charger within close proximity to Evergy's current EV chargers, the utilization of existing stations may be diluted (Staff Rebuttal Report, p. 21). Do you agree?

A: No. Evergy will be expanding its CCN with this concern in mind. A tariff restriction is not necessary to ensure that there is not unnecessary duplication of the existing CCN. Evergy has no interest in investing in additional EV charging stations if there are already adequate EV charging stations in place. As Mr. Ives explains in his surrebuttal testimony, Evergy will consider proximity to existing DCFC stations when considering potential new sites for TNC/Rideshare.

Q: Dr. Marke also argues that Evergy should not be expanding its participation in the CCN when its customers are still experiencing arrearages related to the COVID-19 pandemic (Marke Rebuttal, pp. 13-14). Is that a good reason to deny Evergy's Application in this case?

A: No. While Evergy certainly recognizes the adverse impact that the pandemic has had on its customers, it has been taking measures to help customers with this economic impact. As I testified in Case No. EU-2020-0350[16], Evergy was an industry leader in responding to our customers' needs during the COVID-19 pandemic. We were one of the first U.S. utilities to announce a voluntary moratorium on disconnection for non-payment. We

[16] Charles A. Caisley Surrebuttal Testimony, p. 4, lns. 3-4, Docket No. EU-2020-0350.

developed alternative payment arrangement plans, aggressive customer communication and outreach, and contributions and emergency grants for non-profit agencies. There is no legitimate reason to deny Evergy's application in this case because of the difficult circumstances that the pandemic has caused for some of Evergy's customers. These investments that we are proposing to support the burgeoning growth of transportation electrification and, if actively managed through the utility's involvement, will benefit all customers through increased revenues and potential downward pressure on rates over the longer term. Additionally, as supported by Mr. Ives, our proposed portfolio reflects a modest investment with little rate impact to customers. However, the learnings from the proposed portfolio can have a large impact on how Evergy continues to prepare for the TE future.

Q: Will Evergy move forward if the Commission rejects its TE Application or substantially limits it in a way that it will not be effective?

A: Unfortunately, the answer will be no. If the Commission rejects or limits our proposal in a way that will make our efforts ineffective, it would not be practical from a business sense to move forward. The CCN expansion in Missouri as well as the TE programs must have the appropriate scale to be effective and to deliver the intended results for customers and lessons learned for Evergy. Said another way, putting a toe in the water to test the temperature and then taking some time to determine if you want to go all in may work on other initiatives but it will not work for TE in our service territories. Evergy will be disappointed and will extricate itself from the business. That will mean selling its existing CCN stations and then reacting to how TE unfolds. I think such a decision will have lasting impacts for years to come but it would really be the only option at that point. If it comes

to that, I suspect Evergy will have far less visibility to the TE growth occurring on our system and the ramifications we fear will come to fruition, and then TE will need to be brought before the Commission again years down the road. At that point, we will be reacting to TE and not proactively trying to influence and learn from it.

Q: What do you see those ramifications as being?

A: This is a watershed time for Missouri concerning TE. The states around Missouri have chosen to support utility involvement in the process to ensure TE growth and capture the related economic benefits and development. While the MPSC has supported limited utility electrification filings and opened a working case to "Evaluate Potential Mechanisms for Facilitating Installation of Electric Vehicle Charging Stations" in 2019, the policy the Commission adopts in this docket is key to achieving a favorable outcome for Missouri customers. Without active utility participation in electrification, Missouri will fall behind.

Q: Why does it make sense for Evergy to promote TE which increases kWh usage when Evergy is also has DSM and EE programs in place through MEEIA that are focused on reducing electricity usage?

A: It's a matter of the *timing* of the usage. With utility involvement and when done right, TE increases usage of the grid during times when the grid has existing capacity available, whereas DSM/EE seeks to reduce usage during peak periods. DSM and TE are symbiotic, not oppositional.

Q: With respect to Evergy's Residential Rebate Program, Dr. Marke argues that customers who receive this rebate will not suffer any repercussions if they charge during on-peak hours, nor program conditions exist to prevent such behavior. He proposes a more efficient way of incenting managed charging is through pricing (Marke Rebuttal, p. 16). What is Evergy's view on this?

A: Evergy has developed a Rates Modernization Plan ("Rate Plan"). The Rate Plan is intended to guide the Company on several identified rate objectives over a period of time. The Rate Plan provides a framework for Evergy that is both responsive to its historical regulatory obligations in Missouri and Kansas, but also provides a framework for updating the Company's rate plans and guiding future general rate case filings. Evergy has a long history of listening to our customers and working to best understand what they want concerning energy and believes that any approach taken for establishing a TOU rate should be measured and reviewed in order to maximize results and customer engagement. Evergy currently has an opt-in TOU rate in Missouri and as Company Witness Voris further explains in his testimony we do not support tying a specific rate as a condition to participation in a program in this case.

II. CLOSING

Q: Do you have any additional comments you would like to present to the Commission in light of the testimony received from Staff and OPC?

A: Rather than summarize the key points made earlier in my testimony, I will take this opportunity to make a few closing comments. I think we are at an obvious crossroads right now in the electric industry with TE. The time is now for the Commission to make a critical decision that will set the course for our customers for years to come. Do we want

to take a proactive approach and make the investment to grow Evergy's ability to manage the inevitable expansion of TE for Missourians as well as have the tools and data intelligence to do that or wait to react to it down the road? Evergy thinks the answer to that question is obvious – a proactive approach is best. Over the long term, unmanaged EV proliferation on the electric system is just too great of a risk to take, especially given the relatively small investment that is required as presented in our Application. Left to market forces, there is the potential for robust expansion in urban areas while rural and traditionally underserved communities get left behind. Such an outcome would not be good for Missouri and Evergy's customers.

Q: Does this conclude your prepared surrebuttal testimony?

A: Yes, it does.

DECLARATION OF CHARLES A. CAISLEY

County of Jackson)
) ss
State of Missouri)

Charles A. Caisley, being duly sworn, deposes and says that the information accompanying the attached testimony was prepared by his or under his direction and supervision.

Under penalty of perjury, I declare that the foregoing is true and correct to the best of my knowledge and belief.[1]

Evergy, Inc.

Charles A. Caisley, Declarant

[1] *See* Letter from the Commission, dated March 24, 2020: "[A]ny person may file an affidavit in any matter before the Commission without being notarized so long as the affidavit contains the following declaration: [']Under penalty of perjury, I declare that the foregoing is true and correct to the best of my knowledge and belief.['] _____ Signature of Declarant[.] This guidance applies both to pleadings filed in cases before the Commission and to required annual reports and statements of income."

Topics

- Introductions
- Beneficial Electrification
- Electric Transportation Trends and Policy Drivers
- Charging Flexibility and the Importance of Managing EV Load
- Rate Design
- Opportunities for Kansas
- Concluding Thoughts

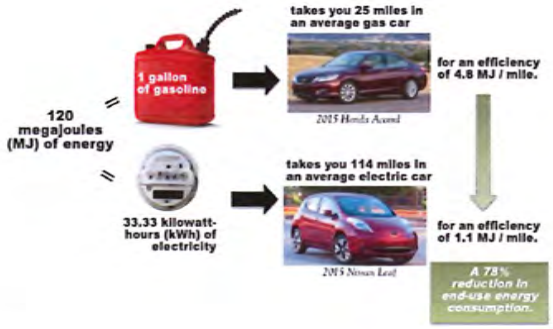
Beneficial Electrification - Three Considerations

1. Saves Customers Money Over Long-Term

2. Reduces Environmental Impacts

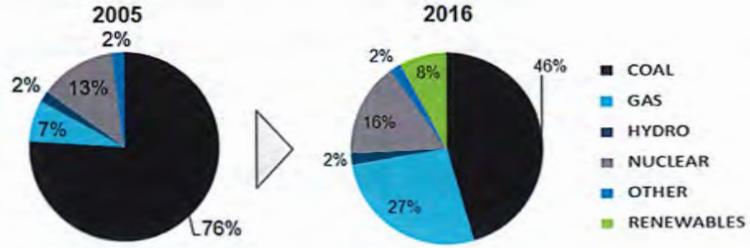
3. Enables Better Grid Management

Savings from Efficiency Across Fuel Types



Power sector fuel mix is changing: Midcontinent ISO example

MISO Generation Portfolio Evolution



Source: http://www.misomatters.org/2017/03/3-electricity-industry-issues-we-are-watching-in-2017/

Enables Better Grid Management

Federal Policies

- Executive Branch: relaxed emissions regulations
- Congress not inclined to move EV clean transportation legislation, including extension of federal tax credit for EV purchases
- New Administration/Congress: TBD

Volkswagen Settlement $

- Trust funds from US EPA settlement with Volkswagen for car sales with a "defeat device" in diesel engines that changed the report of emission performance.
- $3 billion settlement with federal authorities, making funds available to states.

State Level Policies

- Zero Emissions Vehicles – ZEVs
- Supportive Legislation
- State Strategies
  - PUC Decisions and Utility Programs,
  - Planning,
  - Pilot Programs, and
  - Tariffs to manage EV charging load
- Regional Agreements

Recent State EV Legislation

- **Planning – Goals and EV infrastructure**
  - Transportation electrification planning -- either state agencies (FL) or utilities (CO SB 19-077, MN)
  - Build out of EV infrastructure
    - Utilities – NJ, FL, CO
    - public/private partnerships for EV infrastructure -- WA
- **Incentives – 45 states have EV incentives – financial and non-financial**
  - Focused on: individual EVs, LMI, medium and heavy-duty vehicles, workplace charging grants
- **Remove barriers – define rules of the road**
  - Ensure charging stations accessible for all – CT, NH,
- **Empower PUCs**
  - Clarify whether EVSE are PUCs – MO, OK, IA
  - Authorize utilities to provide EVSE – CO, NJ, NM
  - Authorize TOU rates – MN, OR,

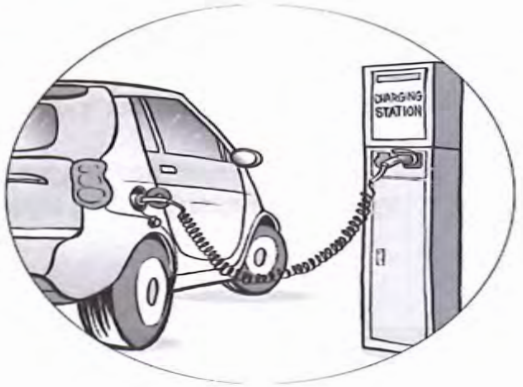
Public Utility Programs – 2019

State	Utility	Filing Identifier	Investment	Charging Stations
California	San Diego Gas & Electric	A1801012	$109m	N/A
Minnesota	Xcel Energy	M-18-643	$26.4m	350
Maryland	Baltimore Gas & Electric	9478	$25.7m	2,200
California	Southern California Edison	A1807022	$19.8m	380
California	San Diego Gas & Electric	A1807023	$18.7m	324
Maryland	PEPCO	9478	$14.2m	1,300
Michigan	DTE Energy	U-20162	$13.1m	3,832
California	Pacific Gas & Electric	A1807020	$11.3m	175
Missouri	Ameren Missouri	ET-2018-0132	$11.0m	853
Michigan	Consumers Energy	U-20134	$10.0m	3,224

The Key EV Opportunity: Managing Load

EVs can be a **benefit** ... or a **problem** for the electric grid.

Drawing high amounts of power for short periods of time.



Managing Load – Maryland PSC

"**EV load must be managed effectively**, otherwise all ratepayers will share in the expensive costs of upgrading and maintaining the distribution system to accommodate increased load on the system."

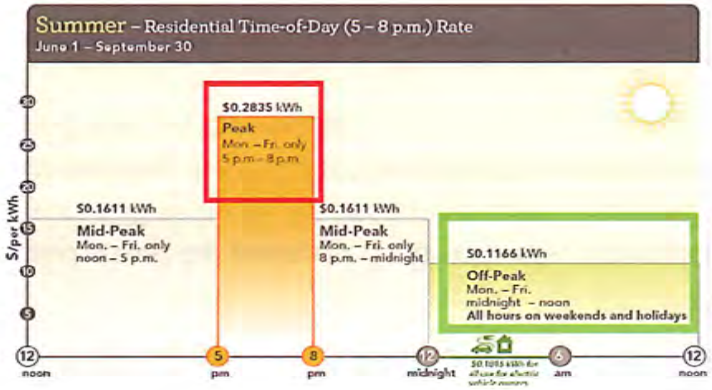
Public Service Commission of Maryland. (2019, January 14). Order No. 88997, In The Matter Of The Petition Of The Electric Vehicle Work Group For Implementation Of A Statewide Electric Vehicle Portfolio, CASE NO. 9478, p. 49.

Managing Load – Maryland PSC

"**Pairing** EV **adoption and** EV **charging with intelligent rate design** can **improve** electric distribution **system utilization** and create **downward pressure on rates** through load management and system peak reduction."

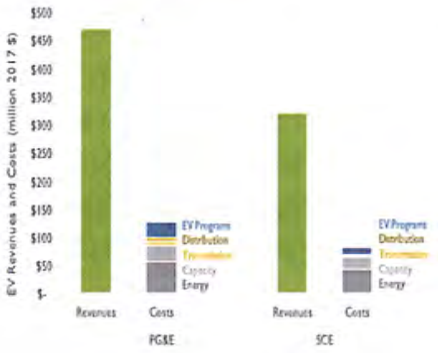
Public Service Commission of Maryland. (2019, January 14). Order No. 88997, In The Matter Of The Petition Of The Electric Vehicle Work Group For Implementation Of A Statewide Electric Vehicle Portfolio, CASE NO. 9478, p. 43-44.

Pricing for Time of Use



Source: Sacramento Municipal Utility District https://www.smud.org/en/Rate-Information/Time-of-Day-Rates/Time-of-Day-5-8pm-Rate

EVs provide benefits for all ratepayers



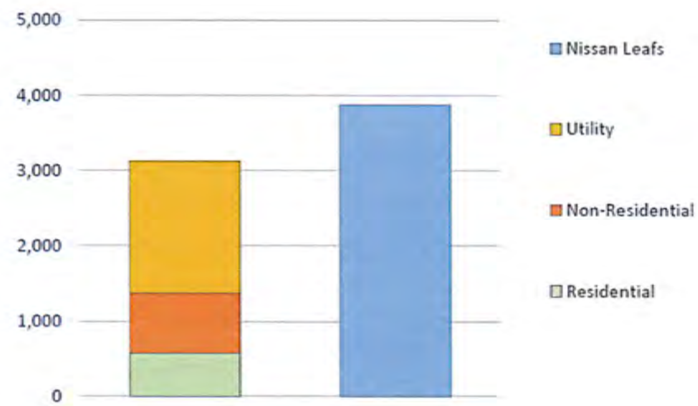
PG&E and SCE Revenues and Costs of EV Charging, 2012-2018

- EVs have increased utility revenues more than they have increased utility costs which creates conditions for decreasing electric rates for EV-owners and non-EV owners alike.
- By charging during off-peak hours, EVs impose minimal costs on the grid and help to utilize existing resources more efficiently
- Data show that EVs are requiring few distribution system upgrades and, when on TOU rates, are charging at low-cost times for the grid.
- Sources: Synapse, MJ Bradley, E3

Not All EVs are Created Equal

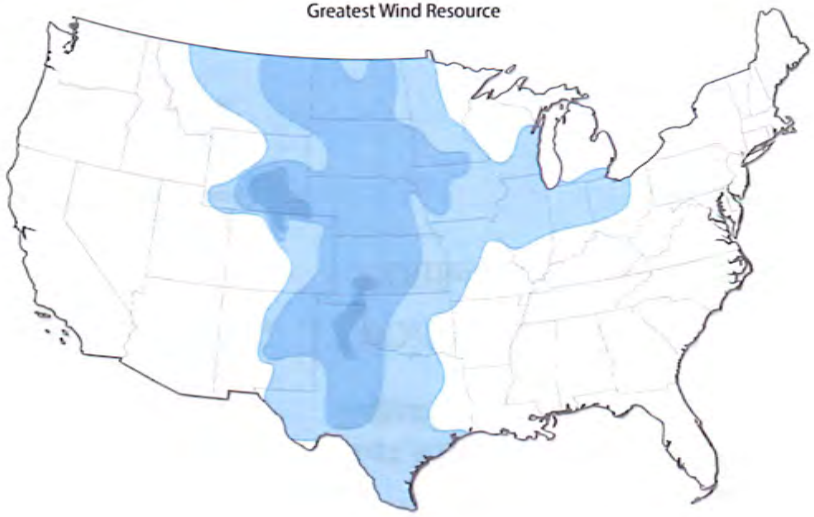
- Different needs and goals
- Different rate designs

Storage Cumulative MWh U.S. Deployments (2012-2019)

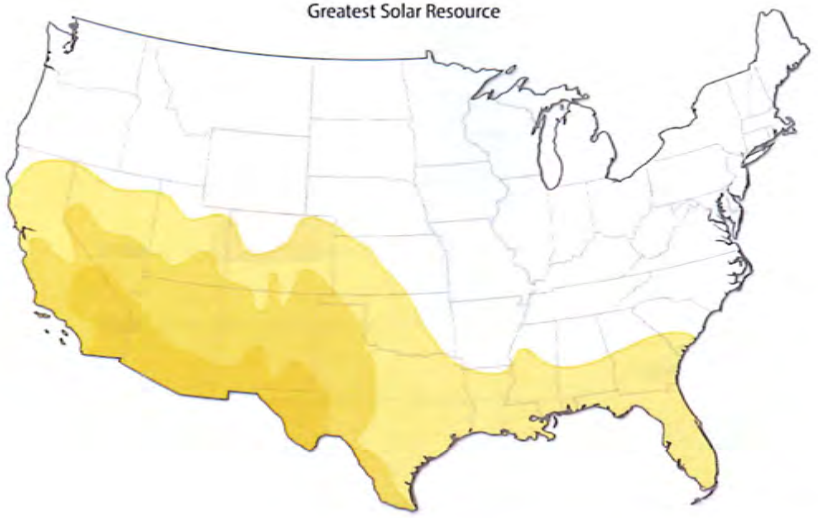


Why V2X?, Presentation to EPRI, David Slutsky, July 2020, https://assets.ctfassets.net/ucu418cgcnau/30ysd3gvRhiM5q0772bmuU/4c79642ac90c90d8f67f3cee863a91f1/02-1_Slutzky_David_Deck_for_EPRI_Talk_2020_07_23.pdf.

Greatest Wind Resource



Greatest Solar Resource



Planning

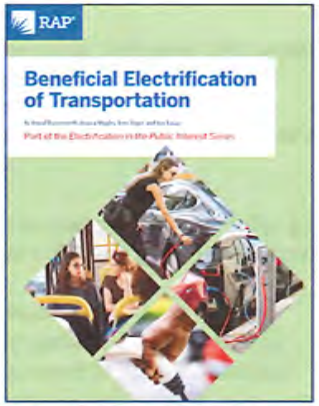
- Will *existing processes* – EE potential studies, program planning, integrated resource planning (IRP), and transportation planning sufficiently analyze electrification scenarios?
  - For example: comparing BAU versus high/mid/low transportation electrification scenarios, in addition to backing into the topic from POV of existing or likely carbon goals.
- Does the IRP process identify and quantify the benefits of utilities using:
  - EV charging to meet flexible demand;
  - The storage capabilities of EVs; and
  - All cost-effective energy efficiency, demand response and renewable energy to meet EV charging needs?

Concluding Thoughts

- Federal action on EVs unclear.
  - States will continue to lead EV policy
  - Some VW funding still available
  - Federal funding may become available
- Kansas well-positioned to fuel electric transportation:
  - EV load management continues to be the key to quicker and lower-cost deployment, and utility and consumer benefits.
- Planning (IRP) helps to:
  - Identify benefits,
  - Best secure those benefits, and
  - Prudently pay for them.

Beneficial Electrification of Transportation

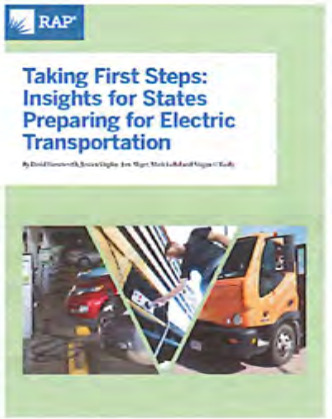
- ***Beneficial* Electrification** A framework to help you sort through those opportunities
- Circumstances will vary:
  - Analyze for local conditions and trends
  - ID opportunities
  - Remove barriers
  - Consider pilots
  - Educate consumers



https://www.raponline.org/knowledge-center/beneficial-electrification-of-transportation/

Taking First Steps: Insights for States Preparing for Electric Transportation

- As the market for EVs continues to grow, states are taking their first steps to:
  - Prepare for this transition;
  - Promote beneficial outcomes; and
  - Avoid unnecessary challenges.
- *Taking First Steps* identifies insights and lessons learned across the country from States that are taking their first steps.



https://www.raponline.org/knowledge-center/taking-first-steps-insights-for-state-utility-commissions-preparing-for-electric-transportation/attachment/rap-farnsworth-et-al-evs-first-steps-2020-april/

Electrification: Other RAP Resources

- *Roadmap for Electric Transportation*
- *Taking First Steps: Insights for States Preparing for Electric Transportation*
- *Beneficial Electrification: Ensuring Electrification in the Public Interest*
- Getting From Here to There: Regulatory Considerations for Transportation Electrification
- BLOG: *We All Wish We Were More Flexible: Electrification Load as a Grid Flexibility Resource*