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PUC PROJECT NO. 49125



REVIEW OF ISSUES RELATING TO § PUBLIC UTILITY COMMISSION
ELECTRIC VEHICLES § OF TEXAS

Comments of R Street Institute

The R Street Institute (R Street) submits these comments in response to the Public Notice of Second Request for Comments issued by the Staff of the Public Utility Commission of Texas (Commission or PUCT). These questions were approved by the Commission at its July 31, 2020 Open Meeting and published in the Texas Register on August 14, 2020.¹

The R Street Institute (R Street) is a nonprofit, nonpartisan, public-policy research organization. Our mission is to engage in policy research and outreach to promote free markets and limited, effective government. We favor regulation that is transparent and applied equitably, as well as systems that rely on price signals rather than central planning. At the same time, we recognize that natural monopolies and externalities are real concerns that governments must address. We offer research and analysis that advance the goals of a more market-oriented society and an effective, efficient government, with the full realization that progress takes time. R Street has offices around the country, including Texas.

I. Introduction

R Street is pleased to provide responses to the questions raised by Staff. Electric vehicles (EVs) are expected to grow in adoption around the country which raise a number of questions related to understanding and planning for that growth, and what are the appropriate steps that the Commission should take. Commission Staff have identified several important topics for the Commission to consider as it considers those next steps.

At the outset, R Street believes it is important for the Commission to continue to support the market structure of ERCOT and support the growth of market-oriented solutions that can better meet the needs of Texans and not erect unnecessary barriers to entry for market participants. As more fully detailed in our responses below, a vital part to the enablement and support of any market is access to information about the distribution system and ability of developers and customers to understand where are the opportune places for fast charging and public infrastructure. This information is necessary to ensure that fast chargers are located in areas where there is ample available capacity, or where capacity can be added. Additionally, for cities and counties looking to electrify their transit systems, they will need to know where are the optimal locations to place their charging infrastructure that causes the least amount of impacts to the system, at the least cost to them. The decisions made by the Commission in this

¹ 45 Tex. Reg. 5691 (Aug. 14, 2020).

proceeding will go a long way to supporting customer decisions on EVs and EV infrastructure, and have this transition be done in a way to provide the most benefit to Texans at the least cost and least impact on the system.

II. Responses to Staff Questions

1. As a matter of policy, which entity or entities should be permitted to own or operate an electric vehicle charging station in the Texas competitive electric market? Is a different ownership structure appropriate for service areas not open to retail competition?

As a matter of policy, the entity in the best position to make that determination is the customer, be it a truck stop, shopping mall, office building, or residential customer. The Commission should maintain appropriate balances between what is considered monopoly service and what service is best left to the competitive market. In many cases, the entity owning and operating a charging station will be the end use customer anyway. Considering the millions of dollars that Texans are spending today to install charging infrastructure, it would have significant consequences should the Commission decide to limit which entity may own and operate charging infrastructure only to electric utilities.

Indeed, there should be no difference in this regard between areas with retail competition and areas without retail competition, as the point remains the same. Customers are making decisions whether to own and operate charging infrastructure, and the Commission should consider whether or not it is appropriate for a monopoly electric provider to be allowed to expand their monopoly power into areas where there is already a market present. At its most basic, if there is a market already available to customers, and those developers are bearing the investment risk and customers are willing to use their own funds to install this infrastructure, then it would be a poor use of ratepayer funds to allow the distribution utility to enter into an already functioning market.

Customers have many choices in front of them regarding the providers of electric charging infrastructure, which infers a market is already in place for these services. Nevertheless, there is a role for the electric utility to play to support these customer decisions. A truck stop or shopping mall that decides to install Level 3 charging infrastructure (i.e., DC Fast Chargers) will need to work with the distribution utility to ensure there is sufficient distribution infrastructure to handle that level of charging. It may be necessary to lay new wires to the location where the charging infrastructure will be located, to install a larger transformer, or to otherwise “make ready” the location for the charging infrastructure. This would be an appropriate role of the distribution utility to play be it in areas with or without retail competition.

2. Is the operation of an electric vehicle charging station a retail sale of electricity?

At least 35 other states have addressed this question and 35 of them have all decided that electricity used for the charging of EVs is not a retail sale of electricity. The Commission should likewise determine that the operation of an EV charging station is not a retail sale of electricity.

It is important to note that the operator of the EV charging infrastructure is still paying for the electricity used to charge an EV, so the costs of electricity are still being paid, including the distribution and transmission costs associated with that electricity. Should the Commission decide otherwise, it would then potentially regulate every end use customer who installs EV infrastructure as a service. This would include every truck stop, shopping mall, office building, and community charging. This would have a chilling effect on the marketplace. R Street is unclear as to what benefit such a decision would have on customers and the market, especially one that continues to grow across the state.

3. As a matter of policy, how should the cost of the distribution system infrastructure associated with an electric vehicle charging station be recovered in the Texas competitive electric market?

As a matter of policy, distribution infrastructure costs should be considered the same way any other investment in the distribution grid is recovered. For the most part, these costs should be recovered through distribution rates. In some instances, it may be appropriate for certain costs to be recovered directly from customers, consistent with existing Commission rules and utility tariffs.

In order to minimize those costs, R Street would recommend that greater information about the distribution system itself be made available to developers that would identify areas more readily capable to handling large amounts of EV charging infrastructure, especially for fast charging infrastructure. For example, transit authorities seeking to electrify their systems or rural truck stops looking to install several fast chargers will want to know if their locations have sufficient capacity at those locations for that type of demand. In this case, utility distribution planning efforts will be vital to identifying those optimal locations for fast charging. Development of maps, similar to hosting capacity maps used for solar development, can assist customers and EV charging infrastructure providers to locate areas for development of that infrastructure. If that charging equipment is located in areas with plenty of hosting capacity, then infrastructure and customer costs will be reduced since no new infrastructure will be needed. Furthermore, inclusion of EV charging into utility distribution system planning efforts will ensure that the utility investments will be better paired with where EV charging is actually occurring. This will result in better planning by the utility and allow the market to locate charging infrastructure in more optimal locations across the state.

Lastly, to support the growth of EV charging infrastructure, the Commission should consider eliminating demand charges for fast charging infrastructure, at least for a period of time until there is sufficient volume of sales to allow the customer to recover those charges over more kwh. R Street agrees that customers on the distribution grid should pay their fair share of expenses to operate and maintain the grid. At the same time, the application of non-coincident peak demand charges assumes a level of contribution to those costs that may not accurately reflect the true marginal cost impact the addition of new load, such as an EV charging station, has on the existing distribution grid. In addition, the financial impact of demand charges that

must be recovered over a relatively small volume of charging, can make fast charging infrastructure extremely expensive to customers which in turn limits the interest in locations to install them. The role of fast charging will only increase over time as heavy duty trucks and semi's become electrified, however, at this time, without that volume, the application of demand charges will have a stifling effect on the development of EV charging infrastructure.

Reports from Rocky Mountain Institute (RMI) and Great Plains Institute both note that the presence of demand charges pose a significant barrier to use of fast charging infrastructure. RMI, which looked at all EVGo charging equipment throughout California, found that EV tariffs that included demand charges "would be burdensome to any public DCFC, regardless of utilization. This is problematic because it is the very nature of underutilized or newly installed DCFC that the station can experience very low monthly kWh consumption and relatively high peak demand."² In some cases, demand charges accounted for over 90% of the total bill for a particular location.³ Similarly, Great Plains Institute did an analysis looking at barriers to fast chargers across the upper Midwest. It noted that its analysis "found that demand charges are one of the most significant cost factors in [fast chargers] operation. ... [fast chargers] economics are challenging at higher power levels such as 350 kW and 450 kW, where nearly all stations that break even or profit are those operating in utility territories where there is no demand charge."⁴ Like the RMI study, Great Plains found that demand charges accounts for 73-85% of the total bill for a 450 KW fast charger that was used between 1 to 10 times a day.⁵

To the extent the demand charges are used to recover distribution costs, the Commission should consider significantly reducing or eliminating them entirely for fast charging infrastructure. Southern California Edison is a utility that changed its rate design and created a five-year demand charge holiday for its large commercial customers, in particular those customers managing fleets or transit.⁶

4. Is the answer to Question 3 is different for an electric vehicle charging station located in a remote area, primarily for use by long-distance rather than local motorists?

No. The same regulatory treatment should apply regarding recovery of costs through distribution rates and not charging demand charges for commercial and industrial customers seeking to install fast charging infrastructure.

² "EVGo Fleet and Tariff Analysis: Phase 1 California," Garret Fitzgerald and Chris Nelder, Rocky Mountain Institute at p. 17 (2017). https://rmi.org/wp-content/uploads/2017/04/eLab_EVgo_Fleet_and_Tariff_Analysis_2017.pdf

³ *Id.*

⁴ "Analytical White Paper: Overcoming Barriers to Expanding Fast Charging Infrastructure in the Midcontinent Region," Great Plains Institute for the Midcontinent Transportation Electrification Collaborative at p. 13 (2019). https://www.betterenergy.org/wp-content/uploads/2019/08/GPI_DCFC-Analysis.pdf

⁵ *Id.* at 16.

⁶ "PG&E, SCE, SDG&E pursue subscriptions, time-of-use rates to drive more California EVs," Herman K Trabish, Utility Dive (January 23, 2019). <https://www.utilitydive.com/news/pge-sce-sdge-pursue-subscriptions-time-of-use-rates-to-drive-more-cali/545907/>

III. Conclusion

R Street appreciates the opportunity to submit these comments in response to the Staff Request for Comments. We look forward to continuing to participate in this important discussion to craft appropriate policies to support the growth of EVs in Texas.

Respectfully submitted,

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