PROJECT NO. 49125

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

NRG ENERGY INC.'S RESPONSES TO THE COMMISSION'S SECOND REQUEST FOR COMMENTS RELATING TO ELECTRIC VEHICLES

I. INTRODUCTION

NRG Energy, Inc. (NRG) appreciates the continued evaluation by the Public Utility Commission of Texas (PUCT or Commission) of unclear policy matters related to Electric Vehicles (EVs) and respectfully files these comments on the second set of questions posed by the Commission on July 24th, 2020. It is becoming increasingly clear that the mass adoption of EVs will play a crucial role in reducing carbon emissions, addressing climate change, and reducing local air pollution. NRG accelerated its Greenhouse Gas (GHG) emissions reduction goals to align with new Intergovernmental Panel on Climate Change (IPCC) guidance, which calls for limiting global warming to a 1.5˚ Celsius increase. Under this new GHG emissions reduction timeline, NRG expects to reach its 50% reduction target by 2025 and achieve net-zero emissions by 2050.[1] As for local air pollution, EVs reduce emissions of the Criteria Air Pollutants by 70-90% when charged on the Texas grid and 100% when charged on renewable energy.[2] Consistent with this internal effort to align with the IPCC guidance, NRG supports policies that help enable the mass adoption of EVs while preserving the competitive market in ERCOT and ensuring consumer interests are protected.

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[1] NRG, *NRG Accelerates Emissions - Reduction Goals to Align With 1.5˚ C Trajectory,* Sept. 24, 2019, https://www.nrg.com/about/newsroom/2019/38151.html (last visited on August 10, 2020).

[2] Internal Analysis using data from: U.S. Energy Information Administration, *Texas Electricity Profile 2018*, available at: https://www.eia.gov/electricity/state/texas/index.php (last visited Aug. 25, 2020); U.S. Environmental Protection Agency, *2008 National Emissions Inventory (NEI) Data*, available at: https://www.epa.gov/air-emissions-inventories/2008-national-emissions-inventory-nei-data (last visited Aug. 25, 2020) (latest available data available at: https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data); and Thomas A. William, AICP, Byron Chigoy, Jeff Borowiec, Ph.D, Brianne Glover, J.D., Texas A&M Transportation Institute, *Methodologies Used to Estimate Forecast Vehicle Miles Traveled (VMT)*, July 2016, available at: https://static.tti.tamu.edu/tti.tamu.edu/documents/PRC-2016-2.pdf (last visited Aug. 25, 2020).

NRG's responses focus on the consumption of electricity at publicly available commercial EV charging stations (i.e., on-demand, one-way charging) and not EV charging at home or EV-to-Grid (EV2G) applications. EV charging at home does not include a resale of electricity and is treated like the normal consumption of electricity by an end use customer. As EV charging technologies such as EV2G advance, charging stations will be able to interact with the grid and act as storage or generation resources. Policy issues related to EV charging stations acting as storage or generation resources may necessitate further review. However, when considering the appropriate amount of involvement and potential oversight of the Commission related to EV charging stations, it is important to acknowledge the full scope of EV charging station involvement in the electricity market.

II. RESPONSES

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?[3]

Any entity permitted by PURA to sell electricity to end use customers in ERCOT should be permitted to own and operate a public EV charging station in the ERCOT competitive market.[4] PURA expressly prohibits electric utilities from providing retail electric service in ERCOT.[5] The same prohibition should extend to the ownership or operation of EV charging stations by electric utilities. Of the existing statutory categories of participants in the electric market currently in PURA, public EV vehicle charging stations in the competitive areas of ERCOT logically fall under the "retail electric provider" category.[6] Accordingly, owners and

[3] The Commission's Question 1 also asks whether a different ownership structure is appropriate for service areas not open to retail competition. NRG has no comment on non-competitive territories at this time and is thus excluding the question.

[4] Public Utility Regulatory Act, Tex. Util. Code Ann. §§ 11.001-66.016 (PURA).

[5] PURA § 39.105.

[6] An owner or operator of a publicly available commercial EV charging station owns or operates equipment or facilities that transmit or furnish electricity to end use customers in exchange for compensation. Accordingly, those entities would fall squarely within the definition of an "electric utility" under PURA § 31.002(6). However, because that classification would be too onerous to apply in this context and because electric utilities are prohibited from selling electricity in the ERCOT competitive market, those entities must logically fall under one of the exceptions to PURA's definition of electric utility. Given their public, commercial nature, the "self-use" exceptions in PURA

operators of public EV charging stations should be required to register as retail electric providers in order to operate or continue operating in the Texas competitive electric market.[7] Such a requirement should not have the effect of being overly burdensome and should ensure that customers who use public EV charging stations are afforded a basic level of customer protection as explained further below. NRG encourages the participation of EV charging companies in the ERCOT competitive market and supports a low barrier of entry to ensure mass adoption of EVs.

At a fundamental level, an owner or operator of an EV charging station owns or operates equipment or facilities that transmit or furnish electricity to end use customers (i.e., EV customers) in exchange for compensation of some form. Specifically, in the ERCOT competitive market currently, public EV charging stations operate either as a standalone retail electricity customer (e.g., brand-named charging stations) or as part of a retail electricity customer (e.g., convenience store, gas station, office building, restaurant) that then resells electricity to other customers (i.e., EV drivers).[8] As part of the EV charging transaction, the EV customer is taking electricity in exchange for a form of compensation that may include a direct payment, an incentive for purchasing a particular manufacturer's EV, or for being a patron of a business or tenant. Regardless of the form of compensation, the EV customer is receiving electricity in exchange for something of value. While the PUCT has recognized "that the term 'compensation' is generally understood to mean a payment for value or services

§ 31.002(6)(J) would not apply. However, the "retail electric provider" exception in PURA § 31.002(6)(H) both fits the description of the services provided and would result in a reasonable level of oversight in this emerging market.

[7] EV charging station owners who operate such stations solely for their own use should not be required to register with the Commission as they would fall under the "self-use" exceptions in PURA discussed in the footnote above and later in these comments.

[8] Assuming that such charging stations are not owned by a REP and are not for self-use.

rendered,"[9] the Commission has previously interpreted compensation more broadly.[10] This is appropriate and consistent with the concept that the substance of a transaction should generally control over its form for regulatory purposes.[11] Therefore, the "retail electric provider" definition in PURA is consistent with the services being provided and a minimum level of oversight by the Commission would ensure that customers in this emerging retail electricity space receive an adequate level of service.[12] In addition, given that EV charging stations provide electricity to customers in exchange for compensation, the "self-use" exceptions in PURA would not apply.[13]

PURA defines a "retail electric provider" or "REP" as a person who sells electric energy to retail customers in this state.[14] A "retail customer" means a separately metered end-use customer who purchases and ultimately consumes electricity.[15] "Separately metered" means

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[9] *Application of AEP Texas Central Power Company for Declaratory Order*, Docket No. 25395, Order at 8, Finding of Fact 39 (Jun. 21, 2004).

[10] *See Complaint of Rusk County Electric Cooperative, Inc. Against TXU Electric Delivery Company and TXU Power*, Docket No. 30037, Order on Rehearing at 8, Finding of Facts 38-40 (May 19, 2010) (finding that Luminant Generation was compensated by Luminant Mining when the total lignite production cost billed was offset by various amounts for electricity consumed by the Luminant Mining predecessor, which effected a transfer of wealth between the companies)**.**

[11] *See Destec Energy, Inc. v. Houston Lighting & Power,* 966 S.W.2d 792, 794-95 (Tex. App.—Austin 1998, *no pet.*).

[12] As discussed later in these comments, the Commission could revise its existing rules to include a new category of REP specific to publicly available commercial EV charging stations with an appropriate, corresponding level of oversight.

[13] PURA § 31.002(6)(J)(i) and (ii) (excluding from the definition of "electric utility" a person not otherwise an electric utility who: furnishes an electric service or commodity only to itself, its employees, or its tenants as an incident of employment or tenancy, if that service or commodity is **not resold to or used by others**; [or] owns or operates in this state equipment or facilities to produce, generate, transmit, distribute, sell, or furnish electric energy to an electric utility, if the equipment or facilities are used primarily to produce and generate electric energy for consumption by that person) (emphasis added).

[14] PURA § 31.002(17) (defining retail electric provider and also providing that a REP may not own or operate generation assets); PURA § 17.002(6) (defining a retail electric provider as a "a person that sells electric energy to retail customers in this state after the legislature authorizes a customer to receive electric service from a person other than a certificated retail electric utility").

[15] PURA § 31.002(16).

"metered by an individual meter that is used to measure electric energy consumption by a retail customer and for which the customer is directly billed by a utility, retail electric provider, electric cooperative, or municipally owned utility."[16] A standalone EV charging station is separately metered, directly billed, and it ultimately consumes electricity. An EV charging station that is located on the site of another business or commercial property is part of a retail customer that is separately metered, directly billed, and is ultimately consuming electricity. In both cases, the electricity is then being resold to EV customers. An EV charging station co-located with another business constitutes a retail sale of electricity since the combined site is a retail customer and meets the definition of separate metering.

Reliance on the absence of submetering for EV charging station load at a co-located site to avoid the designation of a retail sale would be deemed invalid by prior Commission precedent and could create adverse consequences for the competitive retail market.[17] Separate accounting of EV charging transactions at co-located sites must occur to properly allocate the costs to the EV charging station owner or operator. EV charging station owners or operators should not be able to avoid a retail sale by merely changing the method of measurement (e.g., selling minutes instead of separately metered units of electricity) or the type of compensation when the ultimate product remains the same (i.e., electricity).

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[16] PURA § 31.002(18).

[17] *Complaint of Rusk County Electric Cooperative, Inc. Against TXU Electric Delivery Company and TXU Power*, Docket No. 30037, Proposal for Decision at 16 (Jan. 25, 2010) (rejecting argument that an entity's provision of electric service to a mining area should be excluded from the definition of electric utility because such service was not separately metered and stating that "…service to the mining areas is not separately metered, and that is an element of the definition of a 'retail customer.' But [complainant] is correct that this is a fact entirely under [service provider's] control…. Accordingly, [service provider] should not be allowed to rely on the present absence of separate meters for the mining areas in order to avoid the designation that the service to the mines is retail in nature."). The Commission adopted this PFD by its Order on Rehearing dated May 19, 2010 except as provided for in certain areas not relevant to the separately metered issue.

The above is how publicly available commercial EV charging stations should be classified given the guidance currently provided by PURA. NRG supports the Commission's efforts to clarify the appropriate regulatory treatment of these types of transactions and to evaluate establishing oversight for the entities involved. To that end, NRG recommends that these transactions be considered as retail sales of electricity. Accordingly, by classifying owners and operators of EV charging stations as a type of REP, their customers will benefit from similar customer protection and certification rules required of other REPs (e.g., fair billing practices).

To ensure the process and requirements to be licensed as a REP are not overly burdensome for EV charging station owners or operators, NRG recommends the Commission create a new Option 4 REP category. The Commission's existing rules allow for three different Options for REP certification, with differing levels of registration and reporting requirements.[18] The Commission could create a new category in 16 TAC § 25.107(d) for an Option 4 REP with regulatory requirements that would be specific to EV charging companies. The Commission could then determine whether additional changes to its rules were needed.[19] Amending and adopting such rules can be accomplished without impeding the current operation or continued installation of EV charging stations in ERCOT. Commission oversight has proven invaluable in the competitive retail market to deter bad actors and unintended behavior. If EV charging companies are left exempt from any regulatory oversight, opportunities for abuse or the

[18] 16 Texas Administrative Code (TAC) § 25.107(d).

[19] For example, PURA § 17.004 provides that all buyers of retail electric services are entitled to certain customer protections and directs the Commission to adopt and enforce rules as necessary and appropriate to carry out those protections. The Commission has adopted specific and extensive customer protection rules for Option 1 REPs that provide service to residential and small commercial customers and has, from time to time, amended those rules to better accommodate certain business models (e.g., prepaid service). Likewise, the Commission could adopt customer protection rules specific to publicly available commercial EV charging stations that make sense given the context and services provided.

existing ambiguity could potentially be exploited in a way that ultimately harms consumers, the competitive retail market, and the growth of EVs.

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

Under the current language in PURA, yes. As discussed in NRG's response to Question No. 1, the operation of an electric vehicle charging station should be considered a retail sale of electricity. In the competitive retail market currently, the owner or operator of the EV charging station is either: 1) paying a REP directly for electricity and reselling it; or 2) engaging in an arrangement with another business where the station is located who is purchasing electricity from a REP and the EV charging station is reselling it.[20] As explained in the response to Question No. 1, the form of compensation can vary and the Commission has interpreted compensation broadly.[21] Conducting a sale of retail electricity by reselling it does not change the fact that it is a retail sale.[22] Because customers of EV charging stations are receiving electricity in exchange for compensation, the operators of the EV charging station are selling electric energy. While PURA § 31.002(16) defines "retail customer" to mean "the separately metered end-use customer who purchases and ultimately consumes electricity," the EV charging station is either separately metered or a part of a customer that is separately metered, and is measuring in some way the electricity consumed by the EV charging customers.[23] Additionally, as further discussed in NRG's response to Question No. 1, whether each sale to

[20] Assuming that such charging stations are not owned by a REP and are not for self-use.

[21] *See Complaint of Rusk County Electric Cooperative, Inc. Against TXU Electric Delivery Company and TXU Power*, Docket No. 30037, Order on Rehearing at 8, Finding of Facts 38-40 (May 19, 2010).

[22] *See e.g.,* 16 TAC §25.107(a)(1) ("A person must obtain a [REP] certificate pursuant to this subsection before purchasing, taking title to, or reselling electricity in order to provide retail electric service.").

[23] PURA § 31.002(18) defines separately metered to mean "metered by an individual meter that is used to measure electric energy consumption by a retail customer and for which the customer is directly billed by the utility, retail electric provider, or municipally owned utility."

an EV charging customer is separately metered is wholly within the control of the owner or operator of the EV charging station.[24] Given that each sale to a customer results in compensation to the owner or operator of the EV charging station in exchange for electricity, such stations should not be allowed to claim that they aren't making retail sales because their sales are not sub-metered (by their own design).

As a practical matter, it makes sense to ignore transactions involving de minimis amounts of electricity such as public phone charging kiosks. Electric demand of EV charging stations can reach up to 350 kilowatts (kW) based on current technology and is likely to increase in the future. Therefore, electricity usage at EV charging stations can be substantial and equivalent to large commercial customers. The amount of electricity expected to be consumed at publicly available commercial EV charging stations now and in the future rises to a level to justify a retail sale and Commission oversight.[25]

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?

In order to accommodate the mass adoption of EVs in Texas, NRG expects future distribution system upgrades will be necessary by Transmission and Distribution Service Providers (TDSPs) to ensure the reliable delivery of electricity to all customers including EV customers. The majority of passenger EV charging is expected to take place at home or at work.[26] Therefore, it isn't clear how many public charging stations will ultimately be required to satisfy demand from EV drivers. Similar to current Transmission Distribution Utility tariff

[24] See supra note 18.

[25] As discussed earlier in these comments, PURA's "self-use" exceptions should apply for certain EV charging stations, which would exempt them from regulation by the Commission.

[26] The Rocky Mountain Institute (RMI) estimates that 80% of all charging takes place at home. Brita Gross, *1 in 5 Cars Need to be Electric by 2030, What Will it Take, Rocky Mountain Institute* (Dec. 18, 2019), *available at* https://rmi.org/1-in-5-cars-need-to-be-electric-by-2030-what-will-it-take/.

provisions that provide for extension costs (including upgrade costs) to be covered by a combination of a standard allowance and a customer Contribution in Aid of Construction (CIAC),[27] when costs exceed a standard allowance, it is appropriate for the costs of distribution system upgrades necessary for public charging stations to be recovered through a sharing of costs between the EV charging station owner and the TDSP. However, because the existence of EVs creates economic and societal benefits such as job creation and the positive impact on the environment including reductions in the emissions of both CO_2 and EPA's Criteria Air Pollutants of up to 100% when charged on renewable energy, as well as reductions in noise pollution and vehicle waste fluids such as motor oil, the Commission could consider allowing for increased standard allowance(s), potentially based on size, to ensure that facility costs are not so onerous that they disincentivize EV charging infrastructure development. In determining the appropriate equivalent of a standard allowance, it would be appropriate for the Commission to consider different levels based on the size of a facility, and cost information that could be provided by EV charging station developers for consideration.

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

No. The reduction of emissions by increased use of EVs is a societal benefit. In addition, EV chargers in remote locations create access to and from the community, allowing social cohesion that can foster stronger community ties, create trade corridors, accelerate growth and improve access to essential services for all. Therefore, the shared cost approach described in the response to Question No. 3 is applicable for distribution system upgrades in remote areas

[27] *See* 16 Tex. Admin. Code 25.214(d), Figure § 25.214(d), (e.g. §§ 5.7.1, 5.7.4 (standard language for all TDU tariffs)).

to accommodate EV charging stations. Besides remote locations, social equity should also be a consideration when determining the appropriate cost recovery mechanism. A balanced approach will ensure no particular group of consumers will bear an inequitable share of the costs.

III. CONCLUSION

NRG appreciates the Commission's effort to clarify policies related to EVs and looks forward to continued dialogue on EV-related matters. The growth of publicly available EV charging stations is essential to ensure the mass adoption of EVs. It is important to also balance consumer interests when establishing policies related to them. NRG stands ready to work with the Commission and stakeholders to develop policies that best balance these interests.

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