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PROJECT NO. 48023

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RULEMAKING TO ADDRESS THE
USE OF NON-TRADITIONAL
TECHNOLOGIES IN ELECTRIC
DELIVERY SERVICE

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BEFORE THE
PUBLIC UTILITY COMMISSION
OF TEXAS
PUBLIC UTILITY COMMISSION
CLERK

**COMMENTS OF THE
STEERING COMMITTEE OF CITIES SERVED BY ONCOR**

The Steering Committee of Cities Served by Oncor (Cities) submit these Comments to the Public Utility Commission of Texas (Commission) on questions in Project No. 48023, *Rulemaking to Address the Use of Non-Traditional Technologies in Electric Delivery Service*. On October 2, 2018, the Commission asked for comments on Questions to be submitted no later than November 2, 2018. Accordingly, these Comments are timely filed.

The breadth of the issues presented by the conceivable range of new technologies is nearly impossible to address in these comments. Therefore, the scope of Cities' comments are limited to energy-storage devices. Cities generally support the use of utility-owned energy-storage distribution assets as non-traditional reliability solutions, assuming that proper conditions are applied, and provided that the Commission oversee the deployment and operation of such projects.

Currently, the legality of utility-owned energy-storage devices is unsettled with strong arguments in support of this prospect, and against it. Ultimately, the Commission must determine whether or not a utility can use energy-storage devices under the current statutory and regulatory constructs and how the energy used for these devices should be accounted for. Legislative action is likely necessary to address these concerns. However, if the legal issues are resolved, Cities support the Commission establishing a pre-approval process for TDSP-owned energy storage projects and providing further oversight of such projects.

I. RESPONSES TO COMMENTS REGARDING SPECIFIC QUESTIONS PRESENTED

1. **Apart from energy storage, what non-traditional technologies could provide a potential cost-effective solution to reliability issues on a utility's transmission or distribution system?**

Cities have no comment on this question at this time.

2. **Can a transmission and distribution utility (TDU) legally own a non-traditional technology device, including energy storage equipment and facilities, to support reliability on its system, without a specific exemption in the Public Utility Regulatory Act? If so, under what legal authority could a TDU own such a device?**

As discussed at the outset of these Comments, Cities' response is limited to address only utility-owned energy-storage devices.

As previously mentioned, the law surrounding a TDU's ownership and implementation of an energy-storage device is unsettled. This uncertainty is emphasized by the Administrative Law Judge's (ALJ) Proposal for Decision (PFD)¹ in Commission Docket No. 46368, concerning AEP's application to install utility-scale lithium ion battery facilities in Woodson and Paint Rock, Texas.² The ALJ recommended that the Commission approve the Application, but noted in its conclusion that "[t]he applicable law and regulations can generally be interpreted to support either position,"³ and that "[t]he issues in this case are ultimately policy decisions that must be made by the Commission."⁴

Cities agree with the ALJ's decision in its PFD on AEP's Application that a TDU's ownership and operation of energy-storage devices, where the energy used in such a device is treated as Unaccounted for Energy (UFE), would not specifically violate any statute or Commission rule, but it is also not clear what legal authority permits such a device.⁵

¹ *Application of AEP Texas North Company for Regulatory Approvals Related to the Installation of Utility-Scale Battery Facilities*, PUC Docket No. 46368, Proposal for Decision (Oct. 13, 2017) (PFD).

² Docket No. 46368, Application of AEP Texas North Company for Regulatory Approvals Related to the Installation of Utility-Scale Battery Facilities (Sept. 16, 2016) (Application).

³ Docket No. 46368, PFD at 5.

⁴ *Id.* at 4.

⁵ *Id.* at 21.

A. The PURA prohibition against a TDU selling electricity or otherwise participating in the market does not clearly apply to a utility-owned energy storage device.

Under PURA⁶ § 39.105(a), “a transmission and distribution utility may not sell electricity or otherwise participate in the market for electricity except for the purpose of buying electricity to serve its own needs.”

A TDU’s determination of when to discharge energy onto the grid, instead of ERCOT, does not per se amount to “participating in the market;” the statute does not explicitly prohibit this TDU action. As the ALJ determined in its PFD in the AEP docket, while this action may affect the market, the question of whether this constitutes “participation in the market” is a determination for the Commission to make,⁷ or, conversely, for the Legislature to speak to through legislation.

Similarly, TDU treatment of the energy that passes through a battery as UFE does not clearly amount to the TDU “selling electricity” or “otherwise participating in the market.” As detailed below, because the statute does not explicitly prohibit or permit this TDU action, the Commission needs to determine the extent of the meaning of these statutory terms.⁸

B. PURA and the Commission’s rules are unclear as to whether a utility-owned storage-device is defined as (1) a generation asset or competitive energy resources, and thus prohibiting the device, or (2) a distribution asset, and thus rendering the device permissible.

PURA Provision Defining Which Energy Storage Devices are Generation Assets

Under PURA § 35.152(a), “[e]lectric energy storage equipment or facilities that are intended to be used to sell energy or ancillary services at wholesale are generation assets.”

While it could be argued that this statute was provided to render all energy-storage devices as “generation assets,” the statute clearly features an intent element, limiting which energy-storage devices are considered “generation assets.” A TDU could use a battery and treat the energy as

⁶ Public Utility Regulatory Act, Tex. Util. Code §§ 11.001-58.303 (West 2016), §§ 59.001-66.017 (West 2007 & Supp. 2016) (PURA).

⁷ Docket No. 46368, PFD at 20.

⁸ *Id.* at 20-21.

UFE, without intending to participate in the market; although the energy would be subject to wholesale transactions and transmission fees, as would any energy carried on a utility's transmission or distribution equipment, this does not amount to "intending to sell energy at wholesale."⁹ Rather, the TDU's intent would be to provide a reliability service in very limited circumstances that requires energy to charge the battery.

Commission Rule Defining Generation

Commission rule 16 Tex. Admin. Code (TAC) § 25.341(10) defines generation to include "assets, activities, and processes necessary and related to the production of electricity for sale" and states that "[g]eneration begins with the acquisition of fuels and their conversion to electricity and ends where the generation company's facilities tie into the facilities of the transmission and distribution system." Because utility-owned energy-storage devices would not "produce electricity for sale" (at least under the UFE approach) and they would be located on the distribution grid, these devices should not be considered generation devices under Commission rules.

Commission Rule Defining Competitive Energy Services

Commission rules define "competitive energy services" as "[c]ustomer energy services business activities that are capable of being provided on a competitive basis in the retail market."¹⁰ It might be argued that utilities owning energy-storage devices constitute "customer energy services," and are therefore a competitive energy service.

Cities support the ALJ's finding in the PFD that a plain reading of the rule shows that customer energy services apply to customer premises activities and not batteries installed on a utility's distribution system.¹¹ Further, the Commission has never determined that a battery installed on a distribution system constituted a competitive energy service.

⁹ See Docket No. 46368, PFD at 35.

¹⁰ 16 Tex. Admin. Code § 25.341(3) (TAC).

¹¹ Docket No. 46368, PFD at 19-20.

Definition of Distribution

There is limited specific guidance within PURA regarding what constitutes a utility distribution asset or utility distribution facility under PURA § 31.002(19), just a general description of how a TDU transmits and distributes electricity.

Under 16 TAC § 25.341(5), distribution is defined as “system and discretionary services associated with facilities below 60 [kV] necessary to transform and move electricity from the point of interconnection of a generation source or third-party electric grid facilities, to the point of interconnection with a retail customer or other third-party facilities, and related processes necessary to perform such transformation and movement.” As argued by AEP in its Initial Brief, the batteries could be determined to provide a system service, a core utility function.¹² System service is “[s]ervice that is essential to the transmission and distribution of electricity from the point of interconnection with a retail customer or other third-party facility.”¹³ System service includes “the regulation and control of electricity in the transmission and distribution system,” “transmission and distribution system voltage and power continuity,” and “response to electric delivery problems, including outages, interruptions, and voltage variations, and restoration of service in a timely manner.”¹⁴

If a TDU proposes to implement an energy-storage device that falls within one of these system services, and otherwise complies with the definition of distribution, the Commission could determine that it is a “distribution” asset or facility.

The Commission will have to determine where a given proposed device will fit within the relevant definitions. Because a TDU is not explicitly prohibited by PURA or Commission rules from owning and using an energy-storage device that treats energy as UFE, and because it can be appropriately defined as a distribution asset or facility as a system service, a TDU could potentially legally own an energy-storage device.

¹² Applicant AEP Texas’ Initial Brief at 3-5 (July 7, 2017).

¹³ 16 TAC § 25.341(13).

¹⁴ 16 TAC § 25.341(13)(A), (C)-(D).

3. How should any energy necessary for TDU implementation of a non-traditional technology device be measured and accounted for within the ERCOT market, without using [UFE]?

TDU treatment of the energy running through a battery as UFE is not explicitly prohibited by statute or Commission rule, and is currently being implemented in Presidio, Texas. The Commission should determine whether it should continue treating energy used in these devices as UFE.

In the AEP case, Mark Bryant, a Commission Staff member, testified that the net cost of UFE produced by the two batteries proposed in AEP's Application would be about \$18 annually, for an increase in total ERCOT UFE of less than 0.01%.¹⁵ While UFE calculation and settlement may not have been intended to account for electricity used in utility-owned energy-storage devices, it socializes costs of the TDU asset similarly to how a traditional TDU asset would be socialized.

Other than UFE, Cities are unaware of any alternative legal approach to accounting for the energy. If the TDU cannot build and operate the energy-storage device without violating PURA, the Commission must rely on the legislature to make any necessary changes to make this possible.

4. In which situations and scenarios would it be appropriate for a TDU to deploy a non-traditional technology device for the purpose of supporting reliability on its transmission or distribution system?

The situations that justify the use of such a device as a reliability tool include outages, risk of outages, and local constraints. Additionally, data such as SAIDI/SAIFI reports can be used to help determine whether there is a tendency of outages in an area or a need for a specific energy-storage device. The Commission could use a pre-approval process to place limitations on the situations and scenarios in which a TDU could deploy the device for reliability, with a focus on batteries' cost-effectiveness compared to a transmission or distribution solution.

If utility-owned batteries were widespread, there is arguably a disaster recovery and grid security benefit to having small pockets of energy stored around the state. Depending on the

¹⁵ *Application of AEP Texas North Company for Regulatory Approvals Related to the Installation of Utility-Scale Battery Facilities*, PUC Docket No. 46368, Direct Testimony of Mark Bryant at 5 (Bryant Direct).

scenario, a natural disaster could destroy lines and leave areas isolated from generation for extended amounts of time. The limited amount of electricity on the battery could provide a resource for energy to small areas or to emergency responders until the problem can be resolved.

5. **Should a Certificate of Convenience and Necessity (CCN) or other commission pre-approval process be required before the construction or procurement of utility-owned devices that use non-traditional technologies to support reliability on the transmission or distribution system? If so, what criteria would be appropriate for pre-approval of such devices and why? Should such a pre-approval process only apply for a limited time?**

Cities support the implementation of a pre-approval process conducted by the Commission, in order for the Commission to determine the decisional prudence of proposed utility-owned energy-storage devices and to condition their use.

In this prudence determination, TDUs should be required to show the necessity for the battery project, the cost-effectiveness¹⁶ of the battery compared to traditional TDU projects and alternatives, and a material impact on reliability. As a part of this process, the Commission could place conditions on the projects, such as requiring metering,¹⁶ limiting its use to outages or instances of severe constraints, requiring TDUs to report discharges on annual reports, or requiring communication with ERCOT.

If a utility requested approval of an energy-storage device that looked more like a competitive service, or a multi-use device that could participate in the market, the Commission could disapprove of the project as it would currently violate PURA's separation of regulated and competitive services.

Cities believe that the Commission should maintain a pre-approval process until there is enough data to analyze impacts of the use of the batteries. The Commission should re-evaluate the necessity for pre-approval and conditions once a threshold has been met, such as a certain number of projects that have been approved and built. At this point, the Commission can more accurately

¹⁶ Merely for information purposes.

address the effects of utility-owned batteries on the market due to a more wide-spread use, and the cost-effectiveness can be more accurately compared to traditional projects.

In the meantime, Cities believe that Commission oversight of utility-owned energy-storage devices would be necessary and appropriate to address and correct any unanticipated results.

6. **Should the Commission's rules permit or require a TDU to contract with a nonutility service provider for the provision of a non-traditional technology device to support reliability on the TDU's transmission or distribution system? If so, what parameters should the commission stipulate for this arrangement?**

Cities have no comment on this question at this time.

7. **If the Commission were to adopt a policy of permitting a TDU to procure a nontraditional technology device for the purposes of supporting reliability on the TDU's transmission or distribution system, what potential effects would such a policy have on ERCOT wholesale market outcomes, and especially price formation, in the ERCOT market? What potential effects might such a policy have on the competitive retail market, if any?**

The impact of a single project or two is de minimis, whereas the effects of wide-spread implementation of these projects could potentially affect wholesale market outcomes and price formation. Cities believe that it is too early to make any market impact determinations without being speculative.

While the use of a utility-owned energy-storage device theoretically affects the ERCOT wholesale market, because it discharges electricity onto the grid and treats the electricity as UFE, Commission Staff witness, Mark Bryant, testified in the AEP docket that the net cost of UFE produced by the proposed batteries would amount to approximately \$18 annually, for an increase in total ERCOT UFE of less than 0.01%.¹⁷

As discussed in Cities' comments on Question 5, the Commission should revisit this issue once a threshold number of utility-owned energy-storage devices have been approved and implemented in order to gain more accurate insight into the effects of these batteries on market outcomes and price formation.

¹⁷ Docket No. 46368, Mark Bryant Direct at 5.

8. **What market-based alternatives exist, if any, to address reliability issues on a TDU's transmission or distribution system?**

Cities have no comment on this question at this time.

9. **How could a vertically integrated investor-owned utility maximize the value of an energy storage device without adversely affecting wholesale market outcomes and price formation in its respective market?**

Cities have no comment on this question at this time.

10. **What impediments exist to using non-traditional technology devices on utility transmission or distribution systems?**

Currently, there is arguably no explicit statutory or regulatory prohibition against a TDU using an energy-storage device for reliability purposes when it treats the energy used as UFE.¹⁸ However, as proposed by Cities, Commission pre-approval of the projects would serve as a necessary impediment to a utility using an energy-storage device.

11. **Could the commission specify conditions under which a TDU could employ nontraditional technologies to support reliability? If so, what conditions would be appropriate?**

As Cities proposed in Question No. 5, the Commission could implement a pre-approval process for utility-owned energy-storage devices. As a part of this process, the Commission could place conditions on the projects, such as requiring metering,¹⁹ limiting its use to outages or instances of severe constraints, requiring TDUs to report discharges on annual reports, or requiring communication with ERCOT.

If the TDU decides to treat the electricity as UFE, the Commission could require the TDU to meter the battery's inflows and outflows for informational purposes instead of for settlement purposes, as Electric Transmission Texas, LLC agreed to with the Presidio battery.²⁰ As previously discussed, the Commission would, however, have to address whether this separate metering defines

¹⁸ Consistent with Docket No. 46368, PFD at 21.

¹⁹ Merely for information purposes.

²⁰ Docket No. 46368, PFD at 62; *Application of Electric Transmission Texas, LLC for Regulatory Approvals Related to Installation of a Sodium Sulfur Battery at Presidio, Texas*, Docket No. 35994, Final Order at 10 (Apr. 6, 2009) (Presidio Final Order).

the device as a wholesale storage device under 16 TAC § 25.501(m) and whether the Commission wants to grant an exception to that rule.

The Commission could require TDUs to submit annual reports, attesting to the number of times it discharged energy from the battery for reliability purposes, metering data, and other information that would be helpful in determining the device's compliance with PURA and Commission rules. This report would also be useful in reviewing the effects of all utility-owned storage-devices on the ERCOT grid, if the Commission later decides to do so.

Lastly, the Commission could require the TDU to communicate to ERCOT when it decides to discharge energy for reliability, so that ERCOT is aware. Because the TDU could put this energy onto the grid, and if treated as UFE the energy would be unmeasured, ERCOT could at least factor it in to its real time operations.

- 12. If you are a utility, please provide a detailed overview of any batteries or other energy storage technologies on your transmission and distribution system in the state of Texas that are either currently operational or planned to be operational. Please explain the purpose, use, metering, and deployment of these technologies.**

Cities have no comment on this question at this time.

- 13. Are there any other issues that the commission should consider addressing in this project?**

Cities have no comment on this question at this time.

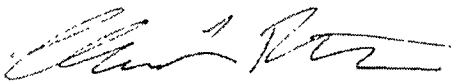
II. CONCLUSION

Cities generally support the use of utility-owned energy-storage distribution assets as a non-traditional reliability solution, subject to the kinds of conditions set forth in these Comments. Cities believe that utility-owned energy-storage devices can provide reliability and cost-saving benefits over traditional transmission and distribution approaches. If the Commission has any doubts about the statutory legality, legislative action would be required to address the Commission's concerns. However, if the Commission determines that PURA and Commission rules currently provide for a

legal basis for utilities to own and operate energy-storage devices. Cities are in favor of the Commission establishing a pre-approval process and providing further oversight of such projects.

Dated: November 2, 2018.

Respectfully submitted,
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