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Dallas, TX 75219

Chairman Thomas J. Gleeson
Commissioner Lori Cobos
Commissioner Jimmy Glotfelty
Commissioner Kathleen Jackson

Public Utility Commission of Texas
1701 N. Congress Avenue
Austin, TX 78711

Responses to PUC Questions from HGP Storage LLC: Project 54224

Question 1: Can the Commission implement the proposed standard distribution resource interconnection allowance without explicit statutory language authorizing such an allowance?

While the Commission may lack explicit statutory language authorizing a standard interconnection allowance, it can draw upon existing legal frameworks, particularly the principles established under HB 17 (2021). HB 17 amended Subchapter Z, Chapter 181 of the Texas Utilities Code by adding Section 181.903, which prohibits regulatory authorities from adopting measures that discriminate against or favor energy sources or technologies. The Commission can interpret this as a mandate to support policies that encourage the fair and non-discriminatory integration of distributed energy storage resources (DESRs), including a standard interconnection allowance that lowers barriers to entry for all energy sources.

Additionally, The Public Utility Regulatory Act (PURA) requires non-discriminatory service to customers. Interconnections at transmission levels with securitization should the system not be constructed allow for increased reliability and resiliency of ERCOT. However, distribution-level DGR/DESR systems are not given equal treatment. This statutory language should support such an allowance and establish parity between transmission and distribution interconnections.

Question 2: What are the advantages and disadvantages of the proposed standard distribution resource interconnection allowance? Is a standard distribution resource interconnection allowance a viable option to move forward?

Advantages:

- **Reduction of Barriers:** The proposed allowance would remove significant financial barriers for DESRs, promoting broader participation in ERCOT's competitive market. Lowering these barriers aligns with the state's goal of enhancing grid reliability and resiliency through distributed resources, as emphasized by Commissioner Glotfelty.
- **Encourages Innovation:** With a predictable cost structure, developers can confidently invest in new technologies, facilitating innovation in energy storage, which is essential for addressing Texas' growing energy needs.
- **Supports Non-Discriminatory Policy:** The allowance ensures that distributed resources, especially those connected at distribution voltages, are not unfairly burdened compared to transmission-level resources, in line with HB 17's principles.
- **Encourages Economic Siting:** The allowance can encourage the siting of resources in areas where facilities and interconnections are more difficult or further away from substations.
- **Helps DSPs with Higher Costs:** The allowance provides greater financial support for Distribution Service Providers (DSPs) with higher interconnection costs or stricter policies.

Disadvantages:

- **Potential Reallocation of Costs:** The burden of covering interconnection costs above the allowance may shift to other customers, which could be seen as unfair. However, the long-term benefits of increased grid resiliency and lower congestion costs outweigh these short-term impacts.

Overall, a standard interconnection allowance is a viable and necessary option as it fosters a fair and competitive market without introducing undue costs for developers.

Question 3: At what amount should a standard distribution resource interconnection allowance be set? Should the applicability or amount of the allowance vary based on the size of the resource?

HGP Storage supports Commissioner Glotfelty's proposed \$1.5 million interconnection allowance as a reasonable starting point for distributed generation and storage resources connected below 138 kV. This mirrors the approach at the transmission level and ensures that small to mid-sized projects can proceed without being hampered by excessive interconnection costs.

The allowance amount should indeed vary based on resource size and benefit to the system in order for the resource to receive the maximum benefit. Consideration of the charging and discharging amounts should be taken into account. Larger DESRs that place higher charging demands on the distribution grid could be subject to higher CIAC thresholds. Smaller systems, both charging and discharging, might take unfair advantage of a fixed allowance. If the resources primary purpose is not to provide energy and

ancillary services to the ERCOT market and creates cross-subsidization could occur and the facility should not be considered for an allowance.

It is noted in the Oncor service area that in their experience typical interconnection costs range from approximately \$250,000 to \$500,000, however these costs are for distribution expenses past the substation breaker. If the resource required a change in substation relays, relay settings, transmission overvoltage protection schemes, transformer LTC/regulator controllers, lightning arrestors, etc. – then these expenses directly related to the distributed resource (identified in the DSPs Impact Study), would be charged at full costs. DSPs will not break down these costs to the paying entity, with the above being classified vaguely as Substation Upgrades. HGP Storage believes that the allowance breakdown categories should be reviewed and those which are installed to support the benefit of the ERCOT grid should be allowed.

It is also noted that CIAC calculations based on charging capacity do not include the benefits to the ERCOT grid when discharging amounts are 9.95MW as in most cases. Consideration to the capacity benefit to the system should be given consideration in the calculations of CIAC.

Question 4: How should the interconnection costs covered by such an allowance be reallocated? What effects would this have on other customers?

The costs covered by the interconnection allowance could be reallocated to the Transmission Cost of Service (TCOS), as suggested by New Leaf Energy and other developers. By shifting the burden to the broader customer base, costs are spread across a larger population of ratepayers, thus minimizing the financial impact on individual customers. This method aligns with the non-discriminatory cost allocation principles under HB 17, ensuring that distributed energy developers are not unfairly penalized for improving grid reliability.

Question 5: Should a standard distribution resource interconnection allowance also apply in areas served by municipally owned utilities and electric cooperatives?

Yes, the standard interconnection allowance should apply in areas served by municipally owned utilities (MOUs) and electric cooperatives to ensure a consistent statewide approach. Uniform application of the allowance prevents geographic inequities that could stifle innovation and development in rural or municipal areas, often underserved by distributed resources. This uniformity ensures that all Texans, regardless of location, benefit from the grid resiliency that DESRs provide.

Question 6: If a standard distribution resource interconnection allowance should apply in areas served by municipally owned utilities and electric cooperatives, does the Commission need to develop a wholesale cost recovery mechanism to address the costs associated with this allowance? What factors should the Commission consider in developing such a mechanism?

Yes, the Commission should develop a wholesale cost recovery mechanism that mirrors those in place for investor-owned utilities (IOUs). This mechanism ensures that MOUs and cooperatives are not unfairly burdened by the costs of integrating distributed resources. Key factors to consider include:

- **Regional Differences:** The varying sizes and capacities of MOUs and cooperatives should be taken into account to avoid overwhelming smaller entities with interconnection costs.
- **Fair Cost Allocation:** Any interconnection allowance should be allocated to reflect the grid-wide benefits of DESRs. Facilities that do not provide a benefit by providing essential energy and ancillary services to the ERCOT market should not be considered. This will ensure that the financial burden is shared fairly across ERCOT participants.

Question 7: What disparities exist between distributed generation and energy storage resources interconnecting at transmission and distribution voltages?

Disparities between exist for distributed generation and energy storage resources interconnecting at transmission versus distribution voltages around cost burden and study completion times. Transmission-level interconnection costs are generally higher and take longer to complete, while distribution-level costs can vary significantly depending on the Distribution Service Provider (DSP).

DSP Outsourced Engineering: HGP believes that the Battery Energy Storage System (BESS) needs in each DSP over the next decade will be significant enough that the major DSPs should develop in-house engineering study teams, rather than outsourcing these studies to expensive third-party contractors. These third-party providers charge very high rates but almost never meet the stated timeframe for completing the studies. This leads to delays, a lack of accountability, and ultimately to finger-pointing between parties with no resolution. By developing internal teams, DSPs could streamline the process, improve cost-efficiency, and ensure timely completion of studies critical to the growth of distributed resources.

DSP Utility Allowances and Study Fees: Disparities exist in the application of generation interconnection allowances. DSPs with tariffs in place will apply CIAC allocation on select portions of the interconnect facilities, while other DSPs without tariffs charge full interconnection costs. Interconnection study costs vary between DSPs and can range in costs from \$16,000 to over \$70,000. Study completion also vary significantly sometimes extending up to and beyond four months. In the Oncor DSP area, for example, Contribution in Aid of Construction (CIAC) allowances are based on charging capacity (approximately \$79 per kW) and not for the system benefit of normally 9.95MW of exporting capacity. Allowances are allowed for distribution-level upgrades, which apply to facilities on the load side of the substation breaker.

DSP Technical Standards: DSPs have varying technical standards, which can lead to disparities in interconnection costs and requirements. For example, in the Oncor service area system protection techniques do not include distribution level transfer trip whereas this is a CenterPoint requirement. These costs can be substantial, as protective relaying upstream of the low-side substation breaker is typically charged at full design costs and does not qualify for CIAC applicability. In most cases, CIAC only applies to distribution-level components, at least cost design.

DSP Construction and Operational Disparities – Justifiably DSPs have varying facilities due to geographic considerations, load density, age, infrastructure and operational considerations. Transmission level interconnections are subject to ERCOT and TDSP operational and engineering standard designs and generally have less variability of design. DSPs, when designing distributed energy resources have much wider flexibility. For example, depending on the DSP, some will consider reconfiguration and modify existing infrastructure. Other DSPs might not want to take the risk of changing substation exit feeders because of the potential risk of problems that could occur due to the reconstruction. In these cases, DPS with varying tariffs and rate applicability can have 3X to 4X wire charge rate differences. The ability for

the DSP to make these decisions can significantly alter economic returns on investment and eliminate potential sites which could benefit the ERCOT grid.

The disparity in how DSPs handle interconnection requirements and the lack of standardized procedures among DSP systems creates uneven cost structures for developers, which can discourage development in certain areas. These discrepancies underscore the need for uniform interconnection policies to ensure more equitable treatment across transmission and distribution systems.

Question 8: What, if any, action should the Commission take to address these disparities in a uniform fashion?

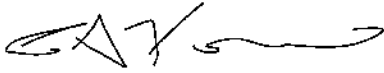
The Commission should establish a uniform policy that treats distribution-connected and transmission-connected resources equitably. This could involve:

- **Interconnection Allowance:** Applying an allowance to both transmission and distribution resources, adjusted based on voltage level, to ensure consistent treatment.
- **Rate Reforms:** Ensuring that distribution-connected resources are not subjected to higher tariffs or fees without justifiable cause, aligning with HB 17's non-discrimination principles.

Executive Summary

- **HGP Storage supports the implementation of a \$1.5 million interconnection allowance.**
- **HGP Storage supports the establishment of uniform policies that treat distribution - connected and transmission-connected resources equitably.**
- **HB 17 mandates non-discriminatory treatment of energy sources, justifying a uniform allowance.**
- **Cost reallocation should be spread via TCOS to minimize customer impact.**
- **Uniformity across IOUs, MOUs, and cooperatives is crucial for fair market access.**
- **HGP Storage supports the establishment of standard regulatory treatment of interconnection assets whether classified as distribution or transmission expenses by the DSP.**
- **HGP Storage supports elimination of wholesale distribution tariffs or standard cost allocation and rate design across DSPs.**
- **HGP Storage believes that CIAC calculations and allowances be based on the system benefit of exporting capacity and that DSP cost benefit allowance factors utilize both distribution and substation expenditures for equipment solely utilized for the resource infrastructure.**

Respectfully,

A handwritten signature in black ink, appearing to read 'G. Forero', with a stylized flourish at the end.

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