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PUC PROJECT NO. 55718

RELIABILITY PLAN	**§**	**PUBLIC UTILITY COMMISSION**
FOR THE PERMIAN BASIN	**§**	
UNDER PURA §39.167	**§**	**OF TEXAS**

The Texas Energy Buyers Alliance[1] (TEBA) represents the collective voice of more than 260 companies, representing some of the state's largest employers and energy customers. In total, TEBA members represent more than $26 trillion in market capitalization and hundreds of thousands of employees in Texas. Our organization is focused on helping to shape Texas' electricity market redesign in ways that propel Texas' economy forward, lower power bills for all energy customers, create jobs, spur innovation, strengthen the ERCOT grid, and extend Texas' energy leadership through the energy transition and for generations to come.

Many TEBA companies located their businesses in Texas in part because of its dependable business environment and open energy markets — including low-cost, increasingly clean, reliable power, and the ability to freely choose and procure it without unnecessary regulations or red tape. TEBA members believe reliable, clean, affordable energy is good for business, and that what's good for business is good for Texas.

TEBA's approach to the Permian Basin is similar to its approach to transmission planning generally: transmission enables the growth of affordable clean power and economic development. New and existing loads need transmission to access affordable

[1] http://txenergybuyers.org

power. The Commission and ERCOT should do everything they can to grow the transmission system for reliability and economic needs, while also adopting grid enhancing technologies, extra high voltage lines, and robust economic analysis. In this docket, the Commission should ensure that ERCOT use all available grid enhancing technologies and not delay extra high voltage transmission equipment.

PLAN

1. Should the Commission approve a phased plan for the Permian Basin? In other words, should there be a first phase to be implemented by 2030 and a second phase to be implemented by 2038? Or should the Commission approve a single, complete plan?

TEBA strongly supports the adoption of the full plan, including the import paths, in a single approval. Transmission projects take, on average, 8-10 years to complete from proposal to energization. ERCOT's load forecasts project the majority of the new load will be in-service by 2033, within the transmission energization timeline if the projects were approved today.

2. To expedite the buildout of import paths into the Permian Basin while research and discussion of the optimal use of an Extra High Voltage (EHV) network in ERCOT system is underway in Project No. 55249, should this reliability plan consider a mixture of 345 kV and EHV options?

TEBA believes the Commission should adopt ERCOT's 765 kV import path proposal for the following reasons.

First, as stated earlier, the majority of the forecasted load is expected to come online by 2033, within the electrification horizon, if the Commission approved the plan today.

Second, with whole sectors of energy consumers electrifying their operations, it will simply be a matter of when, not if, the transmission system will need substantial upgrades in order to meet growing demand. The question before the Commission today is how to proactively prepare for this pending change, and whether to provide greater reliability benefits in advance of the need. Investing in EHV now will help the state be more flexible as this growth happens over time.

Third, TEBA believes that ERCOT's EHV proposal is the least-cost proposal for the most reliability benefit in the long-term. In terms of total dollars spent, it is true that the 345 kV solution in 2038 is the least total cost. However, if the dollar spend is weighted in terms of the incremental operational capacity it provides the ERCOT footprint, the EHV proposal is approximately $3 million less per MW of incremental capacity than the 345 kV solution. Moreover, while the cost per mile of transmission is more expensive than the 345 kV import path, many more miles of 345 kV are required to achieve less benefit.

Multiple, long 345 kV import paths are currently under consideration to move power into the Permian Basin region. A 765 kV transmission line can deliver more power over longer distances and more efficiently than a 345 kV line. While each 765 kV transmission line may require a wider right-of-way, their higher load-carrying capacity will allow one 765 kV line to conduct the same amount of power as multiple 345 kV

lines. This will translate to fewer Certificates of Convenience and Necessity and could reduce the time needed to meet the Permian Basin's power demand by avoiding multiple regulatory hearings and minimize impact on landowners.

Summary of Cost Estimates ($ Billion) for 345 kV and EHV Options in 2030

	345 kV	500 kV	765 kV
Incremental Transfer Capability (MW)	1,340	1,712	2,105
New ROW Required for Import Paths (miles)	1,676	1,370	1,255
Average Transmission Line Cost($Million/mile)	$4.04	$6.86	$6.1
Total Cost Estimate ($Billion)	$12.95	$15.32	$13.77
Total Cost Per MW Incremental Capacity ($Million)	$9.66	$8.95	$6.54

Source: Compiled from ERCOT PERMIAN BASIN RELIABILITY PLAN STUDY REPORT

The EHV options would result in cost savings for all energy consumers compared to the 345 kV option. Because EHV facilities reduce line losses, consumers would pay for a smaller amount of kWh energy usage and as a result would pay less for their electricity costs. In addition, the EHV facilities provide better short circuit strength and voltage stability, which would result in a more reliable ERCOT system, compared to using the 345 kV facilities.

West Texas must improve short circuit strength and voltage stability – these are currently significant constraints, and the Commission should look for every opportunity to fix or mitigate these issues. A more reliable ERCOT system means less chances for grid constraints or outages that often result in high market generation prices. In other

words, compared to the 345 kV option, the 765 kV EHV option would allow energy consumers to experience high market generation prices less frequently, resulting in lower costs for consumers.

Lastly, a 765 kV plan offers regulatory efficiency. The multiple 345 kV import paths currently under consideration to move power into the Permian Basin region, which invites a prolonged Certificate of Convenience and Necessity (CCN) process. While each 765 kV transmission line may require a wider right-of-way, their higher load-carrying capacity will allow one 765 kV line to conduct the same amount of power as multiple 345 kV lines. This will translate to fewer CCNs, reducing the time needed to meet the Permian Basin's power demand by avoiding multiple, prolonged regulatory hearings.

3. What would be the impact to implementation of the plan if the Commission approves the plan for all the common local transmission projects to permit the utilities to expeditiously file CCN applications but delayed the approval of the import paths until after ERCOT completed its EHV Study in 2024? Please address in detail both the benefits and risks of this potential process.

TEBA understands the Commission's hesitation to expedite the approval of a single-phase holistic plan. However, foregoing proactive transmission planning today will result in greater costs to Texas consumers in the future. First, the scope of this plan is to create additional reliability. The benefits of reliability are always difficult to quantify because, if the system works well, then there are no additional costs borne by the Texas economy. However, if the system doesn't perform reliably, the scale of those costs can

be astronomical. Reliability requires front-end planning and operational headroom. The 745 kV import lines offer operational flexibility that enhances reliability and enables proactive transmission capacity planning to meet rapid load growth. Additionally, these lines will provide opportunities for new generation resources to connect with less risk of curtailment. Overall, the benefits of the 745 kV import lines will outweigh the costs.

Furthermore, ERCOT's analysis due at the end of the year can account for this and other changes. The ERCOT report will be in the annual Regional Transmission Plan. To the extent that the Permian Basin Reliability Plan or other load growth dynamics impact the transmission system's needs, ERCOT can account for that in future plans. It can also perform the work of the Regional Transmission Plan more often than once a year.

The Commission should consider the potential impact to the Texas economy due to transmission constraints that exist today and are only growing. Large loads are already facing interconnection constraints because the transmission capacity to reliably deliver power has been essentially maxed out. The delays for transmission build out in terms of avoided economic activity are enormous and not considered by typical transmission planning rubrics. Tens of billions of dollars are expected to be invested in west Texas and throughout the State, and the key constraint is the ERCOT transmission system. Delayed economic opportunity is delayed prosperity.

AFFORDABILITY AND COST

4. With the understanding that the cost of these projects will be passed along to all the ratepayers in ERCOT, what considerations should the Commission address to minimize rate impacts? Are there any guardrails the Commission should implement?

Forward investments in reliability today are less expensive than reliability failures tomorrow. Moreover, by proactively expanding the import paths to meet projected demand, the Commission mitigates economic losses associated with congestion and delayed large load interconnections. As more loads are added to the system, there will be more payors into the transmission system as well. The Commission must make transmission system improvements for reliability; but how it does so is up to how it determines the need in CCN proceedings. Once the initial decision is made for a 765 kV import plan, the Commission holds all of the cards for what CCNs to approve or reject and under what circumstances. If costs become a factor, the Commission can seek additional information on benefits at any time in any proceeding.

5. Are there specific costs not captured in ERCOT's study, such as reactive compensation devices, auto transformers for EHV if the Commission chooses EHV, and series compensation equipment? If so, what are those costs?

TEBA defers to transmission owning utilities when it comes the costs of individual infrastructure; however, we would note the Commission should consider the $ per MW of incremental capacity as an additional measure of transmission development efficiency.

6. In approving this plan, how can the Commission ensure cost effectiveness for the listed projects? Please explain in detail and specifically address risks and offer potential mitigation solutions relating to:

a) Load forecast, because this will be the first time the Commission will rely on load forecast methodology based on PURA § 37.056(c-1).

TEBA understands the Commission is concerned about the risks associated with relying on a load forecast when implementing multi-billion dollar projects. However, as part of each CCN proceeding, the Commission can seek more information on actual loads that will most benefit from the transmission line and make a determination of need in that proceeding.

b) Cost estimates, because projects will not be vetted through ERCOT's Regional Planning Group, the stakeholder committee that regularly reviews proposed transmission projects.

PURA §14.001 give the Commission authority to regulate public utilities, including electric utilities. PURA §17.053 permits the Commission to require reporting over any entity for which it has authority. Moreover, the Commission approves transmission development for utilities outside of the jurisdiction of ERCOT. The Commission has sufficient tools and experience at its disposal to require utilities to submit cost proposals and evaluate their reasonableness. The Commission can also order ERCOT to participate in any CCN proceedings to give testimony.

CCN PROCESS

7. How should the Commission address any project in the plan in which more than one Transmission Service Provider can claim the legal right to build it?

The Commission should pick one option and move forward with it and not let decisions over who builds get in the way of building. A simple approach would be to divide construction equally between TSPs: when two TSPs have the right to build, they each get 50%. Another approach would be a quick round of bidding on the right to build between the TSPs that have the legal right to do so. In our experience in other markets,

this question can drag construction timelines out into the future. Our main recommendation is for the Commission to be decisive.

8. Should the Commission consider any procedural changes to its traditional CCN process to account for the complexity and magnitude of the CCN cases?

No answer given.

FINAL ORDER

9. What, if any, specific items should the Commission's final order include to provide clear and consistent directions for the implementation of the plan to the TSPs, ERCOT, and Staff?

The Commission should order ERCOT to develop more information on grid enhancing technologies, like dynamic line ratings hardware and software, advanced conductors, FACTs devices, and other technologies to help inform the Commission, utilities, and the general public on ways to increase the utilization of the transmission and distribution systems. It should do this in a proceeding at the Commission where stakeholders can participate and provide input. While this issue may seem like a separate issue from the matters in this proceeding, this specific item can help to reduce the overall costs of the investment, and because cost and utilization concerns are a key issue in this proceeding, consideration of cost savings is important.

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Executive Summary

The Texas Energy Buyers Alliance (TEBA), representing more than 260 companies with significant economic impact, offers our perspective on the proposed Permian Basin Reliability Plan. TEBA advocates for market designs that bolster the State's economy by ensuring affordable, reliable power, which is crucial for Texas businesses.

Transmission capacity is a key constraint on the Texas economy. Enhanced transmission capacity is forward looking and will help both generators and large customers navigate the changing landscape in the energy market's future. Access to abundant, affordable, and clean power will change the way Texans consume electricity, and the State should help buyers and sellers access it. The 765 kV system plan should be adopted by the Commission to maximize consumer benefits to costs, but the Commission can maintain careful control over the process through individual CCNs and its authority over utilities and ERCOT.

Delay risks reduced economic opportunities; transmission access is the key constraint for many large loads and generators. Waiting for ERCOT's regional transmission plan is misguided; that report is released and updated each year and could be produced more often. This cadence allows plans to be refined over time.

The Commission should order ERCOT to develop additional information on grid enhancing technologies in a public proceeding at the Commission, where stakeholders and the public can provide additional information to ERCOT and the Commission. These technologies can substantially increase the utilization of the transmission and distribution systems.