**PUC PROJECT NO. 58198**

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| **RULEMAKING TO IMPLEMENT FIRMING RELIABILITY REQUIREMENTS FOR ELECTRIC GENERATING FACILITIES IN THE ERCOT REGION UNDER PURA §39.1592** | **§****§****§****§** | **PUBLIC UTILITY COMMISSION****OF TEXAS** |

TCPA’s COMMENTS ON STAFF’s questions regarding FIRMING REQUIREMENTS FOR ELECTRIC GENERATION FACILITIES IN ERCOT

Texas Competitive Power Advocates (“TCPA”) appreciates the opportunity to provide comments on the questions posed by Commission Staff on June 6, 2025. TCPA represents thirteen companies in the ERCOT competitive market that are independent generation resource owners, independent power marketers, or both. The generation assets in our companies’ portfolios are primarily thermal dispatchable generation comprised of natural gas, nuclear, coal, and some energy storage resources. Our members own approximately 56,000 megawatts (MW) of generation capacity in ERCOT and represent approximately half of the MWs under development in the Texas Energy Fund (“TEF”).

During the 2023 Legislative Session, the provisions enacted in HB 1500 that are the subject of this rulemaking were also contained in SB 7 and discussed in multiple public meetings. In each discussion, whether in committee or on the floor of the House or Senate, policymakers made it abundantly clear that the intent of the legislation was to require renewable resources to contribute to available capacity during times of low reserves and support dispatchable thermal resources that provide reliability and operational needs. The deliberately prospective nature of the statute, rather than retroactive, provides clarity that existing generation resources will not be subject to these requirements but can still contribute to the firming of new generation resources; and the delayed effective date of the statute until the standard generation interconnection agreement (“SGIA”) for a generation resource is executed on or after January 1, 2027, make it clear that resources already under development in this region were also not subject to these new requirements.

It is critical that implementation of this rule be viewed in the larger context of policy directives passed by the Legislature and signed into law by the Governor over the past three legislative sessions. First, SB 3 (87th Regular Session) required the Public Utility Commission of Texas (“Commission”) and ERCOT to establish a reliability standard for the ERCOT region. Then, HB 1500 (88th Regular Session) required the development of a dispatchable reliability reserve service (“DRRS”) with the eligibility criteria clearly indicating a desire to maintain and attract dispatchable resources that are capable of operating for a minimum of four hours at a time or longer if ERCOT deems it necessary. Finally, SB 2627’s (88th Regular Session) core provisions are subsidized loans and completion bonus grants for development of up to 10,000 MW of new dispatchable thermal generation, and HB 14 (89th Regular Session) established support for developing an advanced nuclear industry in Texas.

Taken collectively, the legislature and Governor Abbott are sending a very strong message that dispatchable thermal generation resources are of critical importance for Texas and providing an attractive environment for investment in existing and new dispatchable generation, particularly gas and nuclear, is a high priority. Therefore, great care should be taken when developing this rule to not penalize the very resources that state leadership is so clearly trying to attract and retain. Additionally, this rule should not create any disincentive to uprate, repower, or replace existing resources. Given that more effective market design options have been shelved for now and the resulting uncertainty regarding the remaining moving parts to market design (including this rule), TCPA would respectfully request staff hold a workshop on this topic prior to filing a Proposal for Publication.

**RESPONSE TO STAFF QUESTIONS**

TCPA’s comments to each question and its subparts are contained following each complete question. Any issues not specifically addressed in these comments is not indicative that TCPA has no opinion but merely that there is a need for greater discussion, preferably in a Commission or Staff-led stakeholder workshop, and TCPA reserves the right to supplement these comments at that time.

1. *PURA § 39.1592(b) requires owners or operators of electric generating facilities to demonstrate the ability “to operate or be available to operate when called on for dispatch at or above the seasonal average generation capability during the times of highest risk, as determined by the commission, due to low operation reserves, as determined by the commission.”*
	1. *How should the Commission calculate the seasonal average generation capability?*
	2. *What metric should be used to determine the times of highest risk due to low operation reserves?*
	3. *How many hours should be included to capture the times of highest risk? Should it include a certain number of hours in each season or specific hours each day?*
	4. *How should availability during the hours of highest risk be calculated for an electric generating facility? For example, what resource statuses should be considered when evaluating real-time availability for these hours?*
	5. *Should the Commission rely on historic data to determine an electric generating facility’s seasonal average generation capability and availability during the hours of highest risk?*
		1. *If so, how many years of historic availability/performance data should be utilized to determine an electric generating facility’s seasonal average generation capability and an electric generating facility’s availability during the hours of highest reliability risk?*
	6. *Should capacity from electric generating facilities to which PURA § 39.1592 does not apply (i.e., those with a SGIA executed before January 1, 2027, those that have not been in operation for one year, or self-generators) be eligible to satisfy the reliability requirements of others? If so, how should the quantity of eligible megawatts (MW) from those electric generating facilities be determined?*

**TCPA RESPONSE:** There are several ways in which to define the seasonal average generation capability, which establishes a benchmark to compare against actual availability of the resources subject to this rule. A benchmark should be reasonable and not out of reach for each resource type during each season. Therefore, the seasonal average generation capability should generally reflect the amount of available capacity ERCOT expects to have as part of resource adequacy assessments for the seasons, but recognize that ERCOT’s resource adequacy assessments do not always assume the highest risk conditions in which resource output may be limited by the laws of physics. Ultimately, the firming requirement is intended to support greater reliability associated with the changing resource mix on the ERCOT system. The Effective Load Carrying Capability (“ELCC”), historical performance, and/or an adjusted net maximum sustainable seasonal rating could serve as (or be used in the calculation of) a reasonable benchmark.

The benchmark should also incorporate reasonable run expectations based on temperature variations. For example, some adjustment may be required to the seasonal average generation capability to properly reflect the lower maximum attainable output from thermal generation resources during hot temperatures.

There are some aspects of benchmarking that need additional clarification. For example, does the baseline include morning and evening ramping hours, or does it exclude those hours based on statute? PURA § 39.1592(d)(3) could be read either way. If the baseline excludes those hours (or any other hours “outside” the “morning and evening ramping periods”), then all resources’ (and/or load) ramping hours should be excluded from their baseline to avoid discriminatory practices against resources not subject to ramping associated with the sunrise or sunset or any specified time of day.

While TCPA has not formulated a recommendation on the number of hours that should be evaluated in each season, it might be instructive to review some of the Staff analysis done during the design of a statutorily-compliant performance credit mechanism (“PCM”) since defining high risk hours were a component of that program. The staff recommendation for PCM hours within a season was fifteen high-risk hours. The requirement for DRRS includes an ability to run for four or more hours. While the Commission is not required to mirror either of those provisions exactly for firming, TCPA’s review of those parameters leads us to recommend evaluating a longer time frame than just one interval or one hour and would suggest analysis that evaluates different timeframes including at least a four-hour period (not four hours per year, but rather measuring high-risk hours in blocks of at least four hours).

It is unclear how historic data would be used to determine the seasonal average generating capability for a new resource in operation for a year, which is when the firming requirement is triggered in the statute unless a target ELCC is used based on resource type (at least unless/until a longer track record could be established).[[1]](#footnote-2) The goal of establishing a standard is that it is an objective benchmark applied to all resources of a particular type. Utilizing historical data from a poorly performing resource would result in a lower bar for that resource to meet. A rolling five-year average could be used once a resource has had more operating history (i.e., such as the calculation of a resource specific ELCC), but it appears the initial capability would need to be set based on the previous year’s seasonal average for that resource or a target ELCC based on resource type. If the Commission decides to base the benchmark on historical data, TCPA notes that the statute requires that other resources within the portfolio of the subject resource owner must be eligible to satisfy the requirement since the goal is to ensure the MWs are available without respect to which resource in an owner’s portfolio provides them (similarly, the statute also allows for contracting with third party resources for firming capacity to be available).

The statute requires that generation resources subject to firming requirements be allowed to rely on other resources to meet the requirements, so it would also make sense to use the methodology established for seasonal average generating capability to determine performance from generation resources that are not subject to the firming requirements. This would then allow those resources performing above that average to offset those that are within the portfolio or to contract with other resources. Utilizing the ELCC methodology to establish the seasonal average generating capability could address some of the concerns with using historical data to establish the benchmark.

For resource statuses used to evaluate availability, we recommend that the rule describe codes that show a resource is not “OUT” (unless OUT for planned or maintenance outages) versus listing specific statuses since status codes change over time. Protocol Section 3.9.1 lists status codes and generally any code that shows a resource is available to provide energy, ancillary services, or available for commitment (or out for planned or maintenance outages) should qualify. This approach would align most closely with the statutory language.

1. *PURA § 39.1592(c) requires the Commission to establish financial penalties for failing to comply with the performance requirements in PURA § 39.1592(b) and provide financial incentives for exceeding those performance requirements.*
	1. *What is the appropriate penalty for electric generating facilities that fail to comply with these performance requirements?*
	2. *By what method should ERCOT impose those penalties?*
	3. *How should the collected penalty funds be allocated amongst electric generating facilities that exceed the performance requirements? Should any of the penalty funds collected be returned to load? If so, how should these funds be allocated to load?*
	4. *What should the incentives be based on for those electric generating facilities that exceed the performance requirements?*

**TCPA RESPONSE:** It is important to remember that non-performance penalties already exist for resources and loads that commit MWs in the DAM or for ancillary or reliability services like firm fuel supply service (“FFSS”), DRRS, or Black Start, and all should be exempted from these penalties. The statute already correctly provides an exemption for these services,[[2]](#footnote-3) recognizing that subjecting these resources to such a penalty under this rule would be tantamount to a double penalty and would provide a significant disincentive to resources providing those services. Additionally, the energy market already provides a strong underlying performance incentive for all resources. Therefore, performance bonuses/penalties do not necessarily need to be large because they are additive to existing market incentives – and penalties that are too large could create perverse incentives that result in market distortions.

Penalties imposed under this rule could be treated like an imbalance settlement, similar to that done in other markets, though the Commission should exercise caution to not create perverse incentives from penalties that might encourage distortive behavior in the DAM or real-time market. The Commission could put rules in place with a directive that ERCOT protocols be amended to implement Commission rules and then firming penalties could be issued directly by ERCOT. Performance could be assessed either seasonally or annually and should be settled following either that season or year.

Resources that are under-performing are being firmed for grid reliability by other resources that are meeting or exceeding their performance expectations. There is nothing in statute requiring penalties to be allocated to loads (only to over-performing generators). Therefore, the penalties should be used as an incentive payment to support those resources that are providing the firming by exceeding the performance requirements. This is also consistent with how performance penalties work in other markets like PJM and ISO-NE. In addition, for loads with bilateral contracts with generation, the bilateral contracts could specify whether (and if so, how) any performance payment to generation is shared with load.

1. *PURA § 39.1592(d) limits when a penalty may be assessed to electric generating resources.*
	1. *PURA § 39.1592(d)(1) exempts resources from being assessed a penalty when they are unavailable due to planned maintenance outages or transmission outages.*
		1. *Is the current planned outage approval process sufficient to ensure that generators on a planned maintenance outage are not penalized, or would the approval process need to be modified prior to these reliability requirements becoming effective?*
		2. *How should this exemption account for planned de-ratings for the electric generating facilities?*
	2. *PURA § 39.1592(d)(2) provides an exemption for an electric generating facility that is already subject to performance obligations during the highest reliability risk hours under the Day-Ahead Market (DAM) rules or other ancillary or reliability services.*
		1. *If the Commission were to establish an explicit list of ancillary and reliability services that have performance obligations during the highest reliability risk hours as described in PURA § 39.1592(d)(2), which services should be included?*
		2. *Can an electric generating facility providing these services still contribute to over-performance?*
		3. *Should providing these services exempt the entire electric generating facility from these reliability requirements or only the portion that is subject to these performance obligations (e.g., only exempt 10 MW for a 100 MW generator providing 10 MW of reliability services)?*

**TCPA RESPONSE:** While the statute is clear that planned maintenance outages are exempt from being penalized under this rule, there are some additional outages that also need to be included in the “planned maintenance outage” exemption.

First, this should be read as both planned and maintenance outages being exempt as those are coordinated and approved by ERCOT and are necessary to properly maintain the resource. Similarly, outages moved to accommodate ERCOT requests, such as operational condition notices (“OCNs”) and advanced action notices (“AANs”) should also be exempt regardless of outage type (e.g., those can sometimes show up as “forced extensions” and counted as a forced outage even though it reflects a delayed outage start due to ERCOT’s request). These occur at ERCOT’s request depending on changes to weather and load forecast conditions, and resources that are able to accommodate the requests to help ensure reliability should not face penalty when doing so.

Another area that the Commission must consider in the exemption from penalty are derates for ambient temperature constraints, transmission constraints, environmental limits, extraordinary water or fuel availability, Force Majeure events, or any other derate outside the resource owner’s control. Expected derates are known to ERCOT and market participants and are not subject to outage reporting requirements, so these derates should not be subject to firming penalties. Additionally, climactic events outside the norm such as tornadoes, hurricanes, or wildfires may cause significant damage impacting operations but are not preventable by either generation or transmission owners. Those are vastly different than the intermittent issues this statute seeks to address, such as cyclical hours of the day that predictably affect solar or wind output. For the exemptions related to ancillary or reliability service obligations and energy cleared in the DAM, those are financially binding. Therefore, only capacity that is not committed in the DAM should be subject to the performance obligations under firming.

1. *How frequently should this program be settled and how should ERCOT’s credit processes account for this program?*

**TCPA RESPONSE:** The program should be settled either seasonally or annually, and historical firming charges could be used to set collateral requirements.

1. *Is an electric generating facility with a SGIA signed before January 1, 2027, that makes upgrades that increase the capacity of the electric generating facility such that the SGIA is amended after January 1, 2027 subject to the generation reliability requirements under PURA § 39.1592?*

**TCPA RESPONSE:** The firming provisions of HB 1500 are not applicable to any electric generating facility that has a signed SGIA in place before January 1, 2027. Although SGIAs can be amended from time to time to account for new transmission facilities, repowers, uprates, repairs, or changes in ownership, etc., the creation of an SGIA for an electric generating *facility* should be and has traditionally been, a one-time event. Even if the Commission were to decide now that, going forward, any changes to an SGIA must be made via a new SGIA, this would not change the fact that the electric generating *facility* at issue had a signed SGIA in place before January 1, 2027, and therefore still would not be subject to the firming provisions of HB 1500. Further, statutes must be read in the context in which they were enacted, and upon HB 1500’s enactment in 2023, the signing of an SGIA was a one-time event.

To give additional context, policymakers created the Texas Energy Fund (TEF) during the same legislative session as HB 1500 was enacted. The specific mission of the TEF is to expeditiously increase new gas dispatchable generation investment in ERCOT with distribution of those funds for the in-ERCOT loan program to begin by December 31, 2025. This directive, coupled with the delay of the effective date of the firming provisions to SGIAs executed on or after January 1, 2027, strongly suggests that the firming requirements in HB 1500 were not intended to apply to the new gas generation being developed under the TEF (which also generally would have already signed SGIAs prior to January 1, 2027, based on the applicable timelines of the TEF and have strict performance requirements as part of the loan). Because TEF-funded projects are subject to their own performance requirements that HB 1500’s firming provisions need not duplicate, complicate, or risk contradicting.

Even if the statute were ambiguous (which it is not), as a policy matter, the statute should not be interpreted in a manner that would discourage existing electric generating facilities from improving, upgrading, expanding, repairing, repowering, or otherwise improving the performance of their facilities. HB 1500 will impose new financial burdens on certain electric generating facilities that sign SGIAs after January 1, 2027. If an electric generating facility that had a signed SGIA in place before January 1, 2027, has the option of upgrading, repowering, improving, etc. its facilities – which would be helpful to the ERCOT grid – it may not choose that option if the new financial burdens it would take on as a result would outweigh the financial benefits of the upgrade, repower, improvement, etc.

In sum, the plain statutory language of HB 1500, the contexts in which the firming policy was passed, and public policy considerations all point to the fact that existing generating facilities are not and should not be subject to HB 1500’s firming provisions under any circumstances.

1. *What additional issues related to these new reliability requirements should the Commission consider as it drafts the rule to implement this statute?*

**TCPA RESPONSE:** Over the past few years, the Texas Legislature and state leadership have repeatedly expressed the state’s urgent need for more thermal dispatchable generation in ERCOT to meet current and forecasted load growth. TCPA encourages this policy priority to be considered in the crafting of this rule. A “do no harm” approach to thermal dispatchable resources should be taken to avoid countering the objectives of other policy decisions from the legislature, governor and Commission such as DRRS and TEF.

Collectively, those policy enactments clearly indicate state leaders’ desire for investment in thermal dispatchable resources in ERCOT and retention of existing thermal dispatchable resources. It is also important to place attention on ensuring this rule does not create a penalty that disincentivizes the retention, maintenance, upgrade, repowering or other enhancement of existing thermal dispatchable resources or the new resources being built to serve the ERCOT market.

**CONCLUSION**

 TCPA appreciates the opportunity to provide these comments and looks forward to continuing to work with the Commission, Staff and other stakeholders throughout this project to ensure the Legislature’s goals of a firm, reliable and balanced grid are achieved. We urge the scheduling of a workshop to facilitate greater discussion about this important rulemaking prior to the drafting and filing of a proposal for publication and request to participate in such a workshop.

 Dated: June 27, 2025

 Respectfully submitted,

 

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**EXECUTIVE SUMMARY OF TCPA COMMENTS**

* TCPA requests a Commission or Staff-led workshop on this topic prior to preparing a Proposal for Publication.
* Multiple discussions on the topic of firming during the 2023 Legislative Session made it abundantly clear the intent was to require renewable resources to contribute to available capacity during times of low reserves and to support dispatchable thermal resources that provide reliability and operational needs.
* The prospective nature of the legislation and delayed applicability to only generators with standard generation interconnection agreements (SGIAs) signed on or after January 1, 2027 make it clear that the firming requirements are not applicable to existing resources or those under development prior to January 1, 2027.
* Collective policy actions throughout the 2021, 2023 and 2025 Legislative Sessions, including firming under PURA § 39.1592, send a strong message that dispatchable thermal generation, gas and nuclear in particular, are a high priority for state leaders.
* There are various ways to benchmark seasonal average generation capability but any benchmark chosen should incorporate reasonable run expectations based on temperature variations.
* Clarification on some of the benchmarking is needed, particularly whether ramping is included or excluded from baseline, and whichever interpretation is used should be applicable to all resources to avoid discriminatory practices.
* TCPA recommends reviewing Staff analysis done during the design of a statutorily-compliant PCM which defined high risk hours as well as the requirements in run-time of DRRS as instructive toward determining (but not directly determinative of) the number of hours to be evaluated in each season (such as measuring in blocks of 4 or more hours).
* Resources that show a status other than “OUT” (and resources on planned or maintenance outage that are statutorily exempted) should be used to evaluate resource availability to avoid the rule from becoming stale merely because resource codes have been changed over time.
* Non-performance penalties already exist for resources that commit in the DAM or for ancillary or reliability services and should be exempt from firming penalties since these commitments are already financially binding.
* Statute recognizes that subjecting DAM-committed resources as well as ancillary services- or reliability services-obligated resources to a penalty would be a double penalty that disincentivizes provision of those services and properly exempts them.
* Planned outages and maintenance outages are exempt by statute but outages moved at ERCOT’s request should also be exempt as they are coordinated with ERCOT and known to ERCOT which accounts for reliability needs in that coordination.
* Penalties collected from under-performing resources should be used to support over-performing resources, which is consistent with how other markets also handle performance penalties.
* Exemptions from penalty should be included for derates associated with ambient temperature constraints, transmission constraints, environmental limits, extraordinary water or fuel availability issues, Force Majeure or outside of the resource owner’s control. Similarly, extraordinary climactic events like tornadoes, hurricanes or wildfires are outside both generation and transmission owners’ control and should not result in penalties.
* SGIAs executed prior to January 1, 2027 are exempted from firming requirements and amendments to SGIAs were not considered a new execution when this law was passed and should not be a trigger for application of firming requirements or penalties, as this could discourage investment in existing resources.
* The policy priority of the Texas Legislature and state leadership of increasing thermal dispatchable generation in ERCOT has been communicated through the passage of multiple new laws over the past 3 legislative session and that priority should be considered in crafting this rule with a “do no harm” approach to thermal dispatchable resources.
1. Public Utilities Regulatory Act (PURA) §39.1592(a) [↑](#footnote-ref-2)
2. PURA §391592(d)(2) [↑](#footnote-ref-3)