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Public Utility Commission of Texas

Memorandum

TO: Chairman Thomas J. Gleeson
Commissioner Kathleen Jackson
Commissioner Courtney K. Hjaltman

FROM: Tyler Nicholson, Market Analysis
Chris Brown, PhD, Market Analysis

DATE: March 27, 2025

RE: **April 3, 2025, Open Meeting – Item No. 32**
Project No. 56000 – *Firm Fuel Supply Service*

OVERVIEW¹

Firm Fuel Supply Service (FFSS) was developed by ERCOT in 2022 through Nodal Protocol Revision Request (NPRR) 1120, following direction from the Legislature² and guidance from the Commission³ to address reliability during extreme cold-weather conditions. During the initial phase of FFSS, Generation Resources were required to have onsite fuel storage capability in order to be eligible to provide FFSS. NPRR 1169, which implemented Phase 2 of the FFSS program and was approved by the Commission in 2023, expanded the set of resources eligible to provide FFSS to include Generation Resources owned by an entity that also owns and controls sufficient natural gas in offsite storage, has a firm gas storage agreement, or has entered into a firm transportation agreement on an FFSS Qualifying Pipeline.

There is currently no demand curve or target quantity in Commission rules or ERCOT protocols informing how much FFSS reserves to procure. Additionally, the ownership of on-site fuel oil units is very concentrated. Therefore, during each of the previous three contract periods, the Commission has approved a total budget and offer caps, which ERCOT then incorporated into its subsequently published Request for Proposal (RFP).⁴ Staff develops offer caps and a not to exceed budget in collaboration with ERCOT and IMM. The not to exceed budget has been fixed at \$54M since the beginning of this program.

At the January 31, 2025 Open Meeting, the Commission provided guidance to ERCOT to expand the pool of eligible resources. On February 25, 2025, ERCOT filed NPRR 1275, to implement Phase 3 of the FFSS program, which is currently under consideration in the ERCOT stakeholder process and, if approved as filed, would amend the definition of an FFSS Qualifying Pipeline, further expanding the pool of Generation Resources eligible to provide FFSS.

¹ Project No. 56000, AIS Item No. 3 (Feb. 16, 2024) and AIS Item No. 6 (Jul. 3, 2024)

² *PURA* § 39.159(c)(2), as provided by Section 18 of Senate Bill 3, 87th Leg. (R.S.).

³ *Wholesale Electric Market Design and Directives to ERCOT*, Project No. 52373, AIS Item No. 336 (Jan. 13, 2022).

⁴ See <https://www.ercot.com/services/programs/firmfuelsupply> for prior FFSS RFPs.

The purpose of this memo is to provide a summary of procurements made during prior FFSS contract periods, present an overview of how the current proposal in NPRR 1275 is expected to affect future FFSS procurement parameters (MWs procured, budget, offer cap), and to seek Commission guidance around desired procurement quantities, procurement mechanisms, and the desired level of reliability for the upcoming FFSS contract period before August 1, 2025 when ERCOT is required to publish the RFP.

SUMMARY OF FFSS CONTRACT PERIODS

The table below provides an overview of pertinent data from prior FFSS contract periods, as well as information on the number of resources that could potentially offer to provide FFSS for the Winter 2025-2026 contract period, assuming NPRR 1275 is approved as filed.

FFSS Contract Period	Generation Resources Offering FFSS	Generation Resources Procured for FFSS	MWs Procured	Total Standby Payments
Winter 2022-2023	19 (18 fuel oil, one natural gas)	19	2940.5	\$52,232,374
Winter 2023-2024	32 (31 fuel oil, one natural gas)	32	3319.9	\$29,619,237
Winter 2024-2025	33 (32 fuel oil, one natural gas)	33	4194.8	\$51,344,352
(Potential) Winter 2025-2026	~ 90 (32 fuel oil, ~60 natural gas)	TBD	TBD	TBD

The estimated 90 Generation Resources projected to offer FFSS for the Winter 2025-2026 contract period was derived from a survey conducted by ERCOT, at the direction of the Commission, to identify barriers to entry and how the scope of eligible resources should be expanded. For the winter 2024-2025 contract period, the fuel type breakdown for Generation Resources offering FFSS was 32 fuel oil resources and one natural gas resource. The approximately 60 additional natural gas resources that would become eligible to provide FFSS for the Winter 2025-2026 contract period would increase the potential pool to an aggregate High Sustained Limit of 17,759.39 MW, which is considerably higher than the 4,194.8 MW procured during the Winter 2024-2025 contract period.

POTENTIAL IMPACTS ON FUTURE FFSS PROCUREMENTS

Amending the definition of FFSS Qualifying Pipeline, as proposed in NPRR 1275, is expected to essentially triple the number of resources eligible to provide FFSS. From an operational perspective, these additional, off-site natural gas resources could be considered slightly riskier than on-site fuel oil resources. However, natural gas is significantly less costly, which means more reserves could be procured with the same budget, helping mitigate any increase in risk.

With an expanded pool of eligible resources, there are a few notable outcomes that are plausible if FFSS is procured through a combined market with a single clearing price mechanism. Since natural gas is expected to account for approximately two-thirds of the resources eligible to offer and is less expensive than fuel oil, it is expected that natural gas resources will clear the market and possibly completely crowd out onsite fuel oil resources. In this case, it is likely that more reserves are procured than in past years, but these reserves could be seen as being, to some degree, riskier than the onsite fuel oil resources they are replacing. Another potential outcome is that the resources procured to provide FFSS are predominantly off-site natural gas but some number of fuel oil resources are also procured. In this case, the fuel oil resources would set the market clearing price, natural gas resources would receive this higher price that is related to the marginal cost of fuel oil resources, and it is likely that approximately the same amount of reserves would be procured as in past years, but with more risk introduced.

OPEN QUESTIONS

Staff is requesting that the Commission provide guidance on whether there is merit in ensuring that some amount of onsite fuel oil resources is procured to provide FFSS, particularly in the first year of Phase 3 as the FFSS program expands the pool of eligible resources. And, if so,

- a. Is there a desired minimum number of MWs that should be targeted for procurement from on-site fuel oil resources?
- b. Is there a desired proportion of the budget that should be reserved for the procurement of fuel oil resources?

Staff also recommends eventually a rulemaking project initiated to codify the parameters of this program in the rules for transparency and regulatory certainty.