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January 23, 2023

Public Utility Commission of Texas
Chairman Peter Lake
Commissioner Will McAdams
Commissioner Lori Cobos
Commissioner Jimmy Glotfelty
Commissioner Kathleen Jackson
1701 N. Congress Ave.
Austin, TX 78711

Re: PUC Project No. 52373, *Review of Wholesale Electric Market Design*, and PUC Project No. 53298, *Wholesale Electric Market Design*

Dear Chairman and Commissioners:

Consistent with prior Public Utility Commission of Texas (“Commission”) direction, Electric Reliability Council of Texas, Inc. (“ERCOT”) hereby provides an update on development of the second phase (“Phase 2”) of ERCOT’s Firm Fuel Supply Service (“FFSS”) product and respectfully requests guidance from the Commission on certain policy issues relating to development of Phase 2 of the FFSS product.

I. Background

Last year, in response to Commission directives and Texas Senate Bill 3, ERCOT revised its Protocols to include a new reliability product, FFSS. On June 30, 2022, ERCOT issued a request for proposals (“RFP”) seeking offers from Market Participants¹ to provide FFSS.

The initial FFSS program (“Phase 1”) was limited to two categories of Generation Resources: (1) Generation Resources that have on-site fuel, and (2) Generation Resources that have off-site natural gas storage where the Resource Entity and/or Qualified Scheduling Entity owns and controls both the natural gas storage and pipeline to deliver the required amount of reserve natural gas from the storage facility to the Generation Resource. The off-site storage facility and the associated infrastructure to transport natural gas to the Generation Resource must be a critical natural gas facility, as defined in Commission rule, 16 Texas Administrative Code (T.A.C.) § 25.52(c)(2). As previously reported to the Commission, through the Phase 1 RFP, ERCOT procured commitments from five different Qualified Scheduling Entities offering 19 Generation Resources to act as FFSS Resources (“FFSSRs”), collectively committing to provide a total of 2,940.5 MW of FFSS capacity. Notably, ERCOT had its first deployment of FFSSRs during the recent winter storm commonly referred to as Elliott. ERCOT is evaluating the performance of the

¹ Capitalized terms used but not defined herein have the meaning set forth in the ERCOT Protocols or in Exhibit A.

program during that storm and will be presenting additional information on this deployment at the next Technical Advisory Committee meeting on January 24, 2023.²

In response to directives from the Commission, ERCOT has been working towards expanding eligibility for the FFSS program in Phase 2 to include a broader range of Generation Resources, specifically, those that have firm contractual arrangements to utilize off-site natural gas storage facilities and pipeline transportation owned by third parties. The Phase 2 FFSSRs will be subject to specific requirements that are designed to ensure that this new category of FFSSRs will provide a high level of reliability. The requirements also are designed to ensure that the Phase 2 FFSS product continues to meet the requirements of Section 39.159(c) of the Public Utility Regulatory Act (“PURA”).³

On November 22, 2022, ERCOT issued a Market Notice providing a high-level overview of ERCOT’s draft framework for FFSS Phase 2 (“Framework”) and requesting comments on the draft Framework, which was posted on ERCOT’s website.⁴ The Market Notice also notified Market Participants of a December 14, 2022 workshop to be held virtually and in person. ERCOT received 15 written comments on the draft Framework from participants in both the power and gas sectors.⁵ In addition, the workshop was attended either virtually or in person by more than 100 participants. ERCOT also has received additional informal comments and data in response to inquiries. ERCOT appreciates participants’ cooperation and input and specifically acknowledges the cooperation of certain gas sector participants, all of which have helped inform the development of the Phase 2 Framework.

II. Key Elements of the Proposed FFSS Phase 2 Framework

As proposed in the Framework, Phase 2 of FFSS would allow natural gas Generation Resources with firm transportation and storage agreements to qualify as FFSSRs if they meet certain requirements. The ongoing compliance obligations for Phase 2 FFSSRs also will differ from Phase 1 FFSSRs. ERCOT’s current draft of the Framework is attached as Exhibit A and provides a detailed discussion of the proposed qualification requirements and compliance obligations for Phase 2 FFSSRs, including new defined terms. At a high level, however, the Framework contains the following four key elements, which are designed to expand eligibility to participate in the FFSS program while maintaining a high level of reliability:

- First, the Generation Entity that owns the Generation Resource (or an Affiliate of that Generation Entity) must own and have good title to sufficient natural gas in the storage facility for the offered Generation Resource to deliver the offered megawatts for at least 48 hours and

² A presentation of ERCOT’s report, including observed issues and lessons learned, on the December 2022 FFSS deployment is available under “Key Documents” at <https://www.ercot.com/calendar/01242023-TAC-Meeting>.

³ PURA § 39.159(c).

⁴ Market Notice M-A112222-01 (Nov. 22, 2022), https://www.ercot.com/services/comm/mkt_notices/M-A112222-01.

⁵ The written comments submitted in connection with the workshop are available on ERCOT’s website at: <https://www.ercot.com/calendar/12142022-Firm-Fuel-Supply-Service>.

must commit to maintain such quantity of gas in storage at all times during the obligation period.

- Second, the Generation Entity (or an Affiliate) must either own, or have a Firm Gas Storage Agreement for, sufficient natural gas storage capacity for the offered Generation Resource to deliver the offered megawatts for at least 48 hours.
- Third, the Generation Entity for the Generation Resource (or an Affiliate of such Generation Entity) must have entered into a Firm Transportation Agreement on a Qualifying Pipeline (as defined and discussed below).
- Finally, there are a number of ongoing compliance obligations that would apply to Phase 2 FFSSRs, including a requirement that the Generation Entity for the FFSSR provide a report to ERCOT providing certain information and data if the FFSSR fails to deploy due to a Force Majeure Event.

Each of these elements is intended to minimize certain risks that could undermine the reliability of a Phase 2 FFSSR and to give ERCOT greater ability to gather information regarding FFSSRs that fail to perform. The attached Framework also reflects ERCOT's consideration of the comments received regarding the draft Framework that ERCOT circulated in November 2022.

III. Request for Guidance

ERCOT appreciates the stakeholder comments provided on the Framework to date. As a result of this feedback, ERCOT has identified four areas where it seeks guidance from the Commission: (1) the definition of "Qualifying Pipeline;" (2) the expected procurement quantity for Phase 2; (3) the duration requirement for Phase 2; and (4) potentially expanding the types of resources eligible for Phase 2.

A. Qualifying Pipeline Definition

ERCOT respectfully requests further guidance from the Commission on the definition of "Qualifying Pipeline." As discussed further below, the current definition of Qualifying Pipeline effectively excludes gas utility intrastate pipelines that serve human needs customers or local distribution systems serving human needs customers. ERCOT requests Commission guidance on whether it should revise the definition of Qualifying Pipeline to allow participation by such pipelines.

As currently drafted, the Framework contains a requirement that the Firm Transportation Agreement be with a Qualifying Pipeline. A "Qualifying Pipeline" is defined as a pipeline that is either: (i) a natural gas pipeline subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC") under the Natural Gas Act (15 U.S.C. Section 717 *et seq.*); (ii) an intrastate natural gas pipeline that is not operated by a "gas utility" under Title 3 of the Texas Utilities Code; or (iii) an intrastate pipeline that is operated by a "gas utility" under Title 3 of the Texas Utilities Code that has certified to the Generation Entity that it does not have any contracts with human needs customers or local distribution systems that serve human needs customers on such pipeline. The pipeline also must be a critical natural gas facility, as defined in 16 T.A.C. § 25.52(c)(2).

Accordingly, for an intrastate gas utility pipeline to qualify as a Qualifying Pipeline, the gas utility operator of the pipeline must certify that it does not have any contracts with human needs customers or local distribution systems that serve human needs customers for service on the pipeline. This effectively precludes intrastate gas utility pipelines that serve human needs customers, or local distribution systems that serve human needs customers, from being Qualifying Pipelines.

This certification requirement is designed to address the risk of curtailment presented by the amended curtailment rule (“Curtailment Rule”)⁶ adopted by the Railroad Commission of Texas (“Railroad Commission”) last year. The Curtailment Rule applies when a gas utility experiences a curtailment event⁷ affecting intrastate service on any of its intrastate natural gas pipelines, and requires that the gas utility curtail deliveries according to certain priorities.⁸ Under the Curtailment Rule, if there is a curtailment of firm service on an intrastate gas utility pipeline, firm deliveries to human needs customers and to local distribution systems that serve human needs customers have the highest priority (*i.e.*, they will be curtailed last), and firm deliveries to electric generation facilities have the second highest priority (*i.e.*, they will be curtailed second to last).⁹ There are five other categories of customers that receive lower priority than electric generation facilities.¹⁰

In adopting the recent revisions to the Curtailment Rule, the Railroad Commission rejected commenters’ suggestions to place firm deliveries to electric generation facilities in the same priority as local distribution facilities serving human needs customers.¹¹ Railroad Commission staff responded that including electric generation facilities “would place too many customers in the top priority and risk curtailment of residential natural gas customers.”¹² The Railroad Commission determined that local distribution systems serving human needs customers should have the same priority during curtailment as human needs customers. However, the Railroad Commission found that the same priority should not apply to electric generation facilities. Accordingly, if an intrastate gas utility subject to the Curtailment Rule needs to curtail firm customers on its pipeline, firm deliveries to electric generation facilities must be curtailed before deliveries to human needs customers and to local distribution systems that serve human needs customers. While ERCOT appreciates the Railroad Commission’s efforts to reduce the risk of

⁶ 16 Tex. Admin. Code § 7.455.

⁷ A curtailment event occurs when a gas utility “determines that its ability to deliver gas may become inadequate to support continuous service to firm customers on its system and it reduces deliveries to one or more firm customers.” *Id.* § 7.455(a)(3).

⁸ *Id.* § 7.455(b).

⁹ *Id.* §§ 7.455(c)(1)(A), (B).

¹⁰ A gas utility must follow the default priorities listed in the T.A.C. unless and until the gas utility has an approved curtailment plan on file with the Railroad Commission. *Id.* § 7.455(d). However, even in an approved individual curtailment plan, the first three priorities (including the two discussed herein) must be consistent with the first three priorities listed the T.A.C. *Id.*

¹¹ See Railroad Commission of Texas, Staff Memorandum regarding Adoption of Amendments to §7.455 and Repeal of §7.305, at 9 (Apr. 12, 2022), <https://www.rrc.texas.gov/media/314bqkuf/adopt-amend-7-455-repeal-7-305-sig-041222.pdf>.

¹² *Id.*

curtailment of natural gas service to human needs customers, those customers need both gas and electricity.

Because the Curtailment Rule requires that generation facilities be treated as second priority in the event of a curtailment of firm service, ERCOT is concerned that Generation Entities that ship on pipelines subject to the Curtailment Rule may be at increased risk of curtailment during extreme weather. To address this potential risk, ERCOT has proposed to exclude intrastate gas utility pipelines serving human needs customers or local distribution systems from being “Qualifying Pipelines.”

Numerous stakeholders filed comments requesting that ERCOT eliminate the requirement to submit such a certification and thereby expand the definition of “Qualifying Pipeline” to include intrastate gas utility pipelines serving human needs customers or local distribution systems. Kinder Morgan, Inc. (“KMI”) and Enterprise Products Operating, LLC (“Enterprise”) provided data and information to demonstrate that having contracts with human needs customers, and local distribution systems that serve human needs customers, did not prevent them from meeting their firm delivery obligations to Generation Resources during Winter Storm Uri. KMI noted that during Winter Storm Uri it did not curtail firm deliveries to Generation Resources that served human needs customers, despite the Railroad Commission invoking an Emergency Order that, like the Curtailment Rule, elevated gas deliveries to human needs customers over deliveries to electric generation that serves human needs customers. Enterprise similarly noted that it did not curtail deliveries to its firm Generation Resource customers during Winter Storm Uri. Indeed, according to Enterprise, over the course of the weather event, Enterprise was able to supply approximately 227 million cubic feet more than its existing contractual commitments to customers. According to KMI and Enterprise, the issue during Winter Storm Uri was primarily one of lack of supply, which they assert would be resolved by the requirement in the Framework that Generation Entities maintain gas in storage through a firm contractual commitment. KMI also provided data indicating that its pipelines already have a high percentage of capacity under contracts for firm transportation service, and that many firm customers are in classes of customers that would be curtailed before electric generation.

Multiple commenters also noted that this requirement would preclude most intrastate pipelines from participating and questioned whether any additional Generation Resources would qualify to participate as Phase 2 FFSSRs because of this requirement. Several commenters provided information supporting this point. KMI and Enterprise stated that they could not make such a certification, meaning their facilities would be removed from participating in support of the FFSS Phase 2 program. Commenters also observed that when FERC-jurisdictional interstate pipelines curtail, they generally do so on a pro rata basis within classes of customers. In other words, if a FERC-jurisdictional pipeline had to curtail firm service, it would do so on a proportional basis among all firm transportation customers. Thus, a Generation Entity shipping gas using firm transportation service on a FERC-jurisdictional interstate pipeline might effectively receive lower priority in a curtailment event than it would under the Railroad Commission’s Curtailment Rule because it would be treated the same as any other firm transportation customer.

Based on the information provided by commenters, it appears likely that few, if any, Generation Resources who were not qualified to provide FFSS during Phase 1 would qualify as firm gas FFSSRs during Phase 2 if this requirement is maintained. Thus, if the Qualifying Pipeline

definition is retained as currently drafted, the Phase 2 RFP may fail to attract many, if any, offers for FFSS capacity from Resource Entities that do not own and control the off-site natural gas storage and pipeline facilities. Additionally, the data provided by KMI, Enterprise, and other commenters indicates that there is a low risk of curtailment to generator customers with firm service due to the Curtailment Rule. ERCOT does not dispute the information provided by commenters. ERCOT's goal is to develop a firm service that provides the highest level of deliverability and reliability to the Texas power grid.

ERCOT respectfully requests Commission guidance on whether the definition of "Qualifying Pipeline" should be expanded to include gas utilities serving human needs customers and local distribution systems which serve human needs customers, notwithstanding ERCOT's concerns about the priorities under the Curtailment Rule.

B. Appropriate Procurement Quantity

ERCOT respectfully requests Commission guidance on the appropriate procurement quantity, budget, and offer caps for Phase 2.

The Framework currently is silent on the expected procurement quantity for Phase 2. Stakeholders requested information about the expected procurement quantity for the Phase 2 RFP. They also noted that Phase 1 involved a fuel-use survey from ERCOT to inform the quantity and suggested conducting a similar fuel-use survey to inform Phase 2. Accordingly, ERCOT respectfully requests further guidance from the Commission on the appropriate size, budget, and offer caps for the Phase 2 RFP, including guidance on whether to conduct a fuel-use survey. ERCOT notes that a fuel-use survey may also inform the appropriate budget and offer caps for Phase 2 and therefore recommends that a fuel-survey be conducted.

C. Time Period for Calculating Fuel Reserved for FFSS Deployment

ERCOT also seeks guidance on the appropriate minimum time period for calculating the amount of fuel reserved for Phase 2 FFSSRs.

Based on Commission direction,¹³ Phase 1 FFSSRs are required to have at least 48 hours of sufficient fuel stored. Similarly, the Framework currently proposes a 48-hour period for purposes of calculating the amount of fuel that must be owned, maintained, and stored for Phase 2. Commenters suggested that ERCOT should lengthen the duration for which a FFSSR is required to have sufficient fuel storage capacity to deliver the offered megawatts to either 72 or 96 hours.

Lengthening the duration requirement to 72 or 96 hours would better match the duration of the fuel-supply issues experienced during Winter Storms Uri and Elliott. However, lengthening the duration requirement could narrow the field of qualified FFSSRs. A fuel-use survey, discussed above, could provide additional insight into the impact of lengthening the duration requirement.

¹³ See Commissioner Lori Cobos, Memorandum, Docket No. 52373 (Apr. 20, 2022), http://interchange.puc.texas.gov/Documents/52373_364_1202444.PDF.

D. Potential Expansion of Resources

Finally, ERCOT respectfully seeks Commission guidance on the appropriate response to some Market Participants' requests to further expand the eligible resources for Phase 2.

Two commenters suggested that ERCOT expand the technologies or resource types to be incorporated into the Framework. Specifically, they suggested that: (1) Generation Resources that partner with energy storage technologies with a duration of at least 48 hours should also be allowed to qualify as FFSSRs; and (2) eligibility requirements be further expanded to include Settlement-Only Distributed Generation ("SODG").

It appears that these technologies would fail to satisfy the requirements of PURA §§ 39.159(b)(3), 39.159(c)(1), and 39.159(c)(2). Under PURA § 39.159(b)(3), the Commission must ensure that ERCOT develops appropriate qualification and performance requirements for providing ancillary and reliability services. The Commission must ensure the resources providing these services are dispatchable and able to meet continuous operating requirements.¹⁴ The winter resource capability qualifications include on-site fuel storage, dual fuel capability, or fuel supply arrangements to ensure performance for several days.¹⁵

Based on the plain text of these provisions of PURA, it appears long duration energy storage would not meet the winter resource capability qualifications. Specifically, it is unclear whether long duration energy storage, with limited exceptions, would meet the "fuel" requirements of PURA § 39.159(c)(1). Further, given that the purpose of Phase 2 was to address the third prong of PURA § 39.159(c)(2)—*i.e.*, fuel supply arrangements to ensure performance for several days—it seems inconsistent to include Generation Resources partnered with long duration energy storage, as long duration energy storage is not a "fuel supply arrangement."

With respect to the potential inclusion of SODGs, there are a number of potential challenges. First, SODGs are not currently required to register with ERCOT as a Resource, and the FFSS program is currently structured for Resources. Second, SODGs are not dispatchable by ERCOT, meaning that they would not satisfy the requirements of PURA § 39.159(c)(1), which requires that the resources providing ancillary and reliability services be dispatchable.

Finally, with respect to both long duration energy storage and SODGs, the Phase 2 Framework was developed in response to specific Commission guidance. Therefore, ERCOT has suggested to Market Participants that any appeals for expansion of technologies should be directed to the Commission. ERCOT respectfully requests that the Commission confirm that this is the appropriate response to these requests to expand the types of resources that may participate in Phase 2.

¹⁴ Tex. Util. Code Ann. § 39.159(c)(1).

¹⁵ *Id.* § 39.159(c)(2).

IV. Conclusion

For the foregoing reasons, ERCOT respectfully requests the Commission issue guidance on the above topics, which is necessary to develop Phase 2 of the FFSS program.

Respectfully submitted,

/s/ Chad Seely

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Exhibit A
Framework

Proposed Firm Gas FFSS Product¹

This document provides an overview of potential revisions to the FFSS currently set forth in the ERCOT Nodal Protocols (“Protocols”) that would allow natural gas generation facilities with firm transportation and storage agreements to qualify as FFSSRs if they meet certain requirements. These FFSSRs would be subject to ongoing obligations that would differ from the existing FFSSRs. The proposed revisions to the FFSS would allow ERCOT to further effectuate the directives from the Texas Legislature set forth in PURA §§ 39.159(b) and 39.159(c)(2), which contemplate that the reliability services procured by ERCOT to address reliability during extreme cold weather will include resources with “fuel supply arrangements to ensure winter performance for several days[.]”²

I. Firm Gas FFSSR Qualification Requirements

- A. The Generation Entity for the Generation Resource (or an Affiliate of such Generation Entity) must either own, or have a Firm Gas Storage Agreement (as defined below) for, sufficient natural gas storage capacity for the offered Generation Resource to deliver the offered MW for at least 48 hours.
 - 1. If the Generation Entity will utilize a contractual right to firm gas storage capacity on a third-party system under a Firm Gas Storage Agreement rather than a self-owned physical gas storage facility to qualify, then the Firm Gas Storage Agreement must have:
 - a. a term that ends no earlier than the end of the obligation period starting with Hour Ending 01:00 on [November 15, 2023] and ending with the conclusion of Hour Ending 24:00 on [March 15, 2024];
 - b. a maximum storage quantity not less than the amount of gas needed to allow the Generation Resource to deliver the offered MW for 48 hours;
 - c. a maximum daily withdrawal quantity that permits the Generation Entity (or an Affiliate) to withdraw from storage a daily quantity of gas sufficient to allow the Generation Resource to deliver the offered MW over a 48-hour interval; and
 - d. have a point of withdrawal that is a primary receipt point under its Firm Transportation Agreement (as defined below).
 - 2. If the Generation Entity will utilize storage owned by it or an Affiliate, then the Generation Entity must certify that for the entire obligation period it or its Affiliate, as applicable, retains the rights to:
 - a. sufficient storage capacity in its facility to store not less than the amount of gas needed to allow the Generation Resource to deliver the offered MW for 48 hours;

¹ All capitalized terms used but not defined herein shall have the meaning set forth in the ERCOT Protocols.

² PURA § 39.159(c)(2).

- b. withdraw from its storage a daily quantity of gas sufficient to allow the Generation Resource to deliver the offered MW over a 48-hour interval; and
 - c. withdraw from its storage facility at a point of withdrawal that is a primary receipt point under its Firm Transportation Agreement.
- B. The Generation Entity for the Generation Resource (or an Affiliate of such Generation Entity) must own and have good title to sufficient natural gas in the storage facility for the offered Generation Resource to deliver the offered MW for at least 48 hours, and must commit to maintain such quantity of gas in storage at all times during the obligation period.³
- C. The Generation Entity for the Generation Resource (or an Affiliate of such Generation Entity) must have entered into a Firm Transportation Agreement (as defined below) on a Qualifying Pipeline (as defined below), or multiple Firm Transportation Agreements on multiple Qualifying Pipelines, and:
 - 1. each Firm Transportation Agreement must have a maximum daily contract quantity sufficient to transport the quantity of natural gas described above from the storage facility to the Generation Resource in a quantity that is sufficient to allow generation of the offered FFSS MW for at least 48 hours;
 - 2. at least one of the Firm Transportation Agreements must contain a primary receipt point that matches the point of withdrawal for the storage facility described above;
 - 3. at least one of the Firm Transportation Agreements must have a primary delivery point that permits delivery of the gas directly to the Generation Resource (including through a plant line or other dedicated lateral);
 - 4. each Firm Transportation Agreement must have a term that ends no earlier than the end of the obligation period; and
 - 5. if multiple Firm Transportation Agreements will be used, the point of delivery for each Firm Transportation Agreement, other than the Firm Transportation Agreements that satisfy the requirements set forth in I.C.2 and I.C.3, must be a primary receipt point under another Firm Transportation Agreement such that there is a complete path for firm transportation service from the storage facility to the Generation Facility.
- D. The Generation Entity for the Generation Resource may satisfy the requirements set forth in Sections I.A through I.C through use of a single, bundled agreement providing for gas supply, storage, and transportation service, as long as the bundled agreement satisfies the requirements of the Firm Transportation Agreement and Firm Gas Storage Agreement definitions set forth below, the requirements in Sections I.A.1.a., I.A.1.b, I.A.1.c, I.B,

³ Under the current Protocols, during or following the deployment of FFSS, a QSE for a FFSSR may request approval from ERCOT to restock its fuel reserve to restore their FFSS capability. Following approval from ERCOT, the QSE may restock its FFSS obligation. If ERCOT does not receive the request to restock from a QSE representing an FFSSR, ERCOT may instruct QSE to start restocking fuel reserve to restore its FFSS capability. *See* Protocol 3.14.5(5). Firm gas FFSSRs will be subject to the same or similar refueling provisions.

I.C.1, and I.C.4 above, and has a primary delivery point that permits delivery of the gas directly to the Generation Resource (including through a plant line or other dedicated lateral).

- E. The MW offered by the Generation Entity for the Generation Resource may not be less than the Generation Resource's Low Sustained Limit.
- F. A Generation Resource may not participate as both an on-site fuel FFSSR and a firm gas FFSSR.
- G. If a Generation Resource selected as a FFSSR fails to deploy due to a Force Majeure Event, the Generation Entity for such Generation Resource must provide a report to ERCOT containing certain additional information, including:
 - 1. If the basis of the non-performance is a Force Majeure Event affecting the Generation Resource, a description of the Force Majeure Event giving rise to the non-performance, with reasonably full details of such Force Majeure Event.
 - 2. If the basis of the non-performance is the unavailability of the FFSSR's Qualifying Pipeline or gas storage facility:
 - a. a copy of the relevant Firm Transportation Agreement and/or Firm Gas Storage Agreement;
 - b. a copy of the nominations submitted or a detailed accounting of no notices volumes delivered for the gas day prior to the Force Majeure Event until the gas day after the Force Majeure Event;
 - c. the applicable storage inventory level for the gas day prior to the Force Majeure Event until the gas day after the Force Majeure Event;
 - d. a copy of the force majeure notice from the Qualifying Pipeline operator or storage provider; and
 - e. the capacity and flow data from the Qualifying Pipeline or storage facility for the gas day prior to the Force Majeure Event until the gas day after the Force Majeure Event.
 - 3. To the best of its knowledge, how, why, and to what extent the Force Majeure Event actually and directly affected the FFSSR's ability to perform.
 - 4. The FFSSR's heat rate and generation curve.
 - 5. The applicable nominations, and if applicable, no-notice delivered, on the Qualifying Pipeline from the gas day prior to the Force Majeure Event until the day after the Force Majeure Event.
 - 6. ERCOT will have the right to request that the Generation Entity provide, or cause to be provided, any additional information ERCOT deems necessary, and the Generation Entity must provide such requested information to the extent reasonably within its possession or control. If the information is not in the

possession of the Generation Entity (or its Affiliate) but may be in the possession of the Qualifying Pipeline operator or storage provider, the Generation Entity will exercise any contractual rights it has to request such information from the Qualifying Pipeline operator or storage provider, as applicable.

7. Any information or documentation provided to ERCOT as part of the reporting process will be subject to the confidentiality protections and processes set forth in ERCOT Protocols Section 1.3.

H. ERCOT will issue a Request for Proposals (“RFP”) soliciting offers for firm natural gas FFSSRs. The RFP will parallel the August 2022 RFP for on-site fuel and limited off-site natural gas storage FFSSRs,⁴ except that:

1. The reserve fuel requirements will be tailored to match the requirements above.
2. Each QSE will have to submit a certification for each Generation Resource that it offers into the RFP in which the Generation Entity that owns the Generation Resource:
 - a. Certifies that it has a Firm Transportation Agreement, firm natural gas supply, and contracted or owned storage capacity meeting the requirements set forth above.
 - b. Provides the following information regarding the Firm Transportation Agreement:
 - i. Qualifying Pipeline name;
 - ii. Term;
 - iii. Primary points of receipt and delivery;
 - iv. Maximum daily contract quantity (in MMBtu);
 - v. Shipper of record; and
 - vi. Whether the Firm Transportation Agreement provides for ratable receipts and deliveries.

⁴ As in the first FFSS RFP, the QSE will be permitted to list and provide information for up to three Generation Resources to be used as an alternate Resource for providing FFSS. If offering any alternate Generation Resources, the price/quantity pair for the primary Generation Resource will apply to all alternate Generation Resources. It will be the responsibility of the QSE to notify ERCOT when an alternate Generation Resource will be designated as the primary FFSSR. Any alternate Generation Resources must: (i) be located at the same electrical station; (ii) be connected and supplied by the same pipeline system and gas storage facility as the primary Generation Resource; or (iii) separately demonstrate that it satisfies the contractual requirements applicable to qualify as a firm gas FFSSR. The same alternate Generation Resource may be listed as an alternate for multiple offers. An alternate Generation Resource also may submit its own offer to be designated as a FFSSR. However, if such Generation Resource’s offer to serve as a primary FFSSR clears, then it cannot be an alternate FFSSR up to the amount that clears.

- c. Provides the following information regarding the storage arrangements:
 - i. Storage facility name;
 - ii. Term of the Firm Gas Storage Agreement (if applicable);
 - iii. Maximum storage quantity owned or contracted under the Firm Gas Storage Agreement (in MMBtu); and
 - iv. Maximum daily withdrawal quantity (in MMBtu).
- 3. Any information or documentation provided to ERCOT as part of the RFP process will be subject to the confidentiality protections and processes set forth in ERCOT Protocols Section 1.3.

II. Ongoing Firm Gas FFSSR Obligations

A. Material Changes

- 1. It will constitute a material change under the ERCOT Protocols if a firm natural gas FFSSR ceases to satisfy any of the requirements to qualify as a firm natural gas FFSSR (*e.g.*, if the Firm Transportation Agreement is terminated or if the pipeline being utilized to provide firm natural gas FFSS no longer qualifies as a Qualifying Pipeline).
- 2. The FFSSR will be required to notify ERCOT within two business days of such a material change.
- 3. A Generation Resource's status as a firm natural gas FFSSR will be revoked if such material change is an adverse change (*e.g.*, if a Firm Transportation Agreement is terminated and not replaced with a comparable, qualifying Firm Transportation Agreement).

B. Force Majeure Events

- 1. For a firm natural gas FFSSR, a Force Majeure Event will be treated the same as any other cause for unavailability for the purposes of calculating FFSSHREAF.
- 2. As noted above, any firm natural gas FFSSR that fails to come On-Line or stay On-Line during an FFSS deployment due to a curtailment of its natural gas transportation or storage will be required to submit a report to ERCOT providing certain information and a copy of the Firm Transportation Agreement and/or Firm Gas Storage Agreement. Unless the agreement is a Certified Contract, if the applicable agreement does not ensure firmness in the manner required by the ERCOT Protocols, ERCOT will have the authority to revoke the award and claw back all sums awarded.

C. Certified Contracts

- 1. Any Generation Entity, may but is not required to, submit on a *voluntary* basis and in writing, a proposed form of Firm Gas Storage Agreement or Firm

Transportation Agreement (whether to be entered into by the Generation Entity or an Affiliate thereof) to ERCOT for review of Qualified Contract status in accordance with such policies and procedures as ERCOT may develop or require from time to time consistent with the requirements of the firm natural gas FFSSR.

2. ERCOT may, but is not obligated to, undertake a review of such agreement(s) and, if acceptable, certify in writing such agreement(s) as a Qualified Contract.
3. To the extent that any such agreement(s) is so certified by ERCOT, it shall constitute a Qualified Contract, and a Generation Entity may rely upon such certification for purposes of a firm natural gas FFSSR. Any material change(s) to the ERCOT certified form of an existing Qualified Contract that affects the requirements of a firm natural gas FFSSR shall require a re-certification by ERCOT. For the avoidance of doubt, a Firm Gas Storage Agreement or Firm Transportation Agreement meeting the requirements of the natural gas FFSSR is not required to be certified as a Qualified Contract.

III. Definitions

“Firm Gas Storage Agreement” will mean an executed and enforceable contract (together with any associated statement of operating conditions) for Firm Service at a natural gas storage facility that (i) contains a Qualifying Force Majeure Provision, (ii) provides the right to monitor daily balances of storage capacity, and (iii) requires the storage provider to make available a detailed accounting indicating a reasonable estimate of daily and month-to-date receipts and deliveries of natural gas.

“Firm Service” will mean natural gas transportation or storage service that is (i) described as firm under a contract, tariff, or statement of operating conditions, (ii) the highest priority of service available, and (iii) available on demand and up to the contracted quantities.

“Firm Transportation Agreement” will mean an executed and enforceable contract (together with any associated statement of operating conditions) for Firm Service on an interstate or intrastate pipeline that (i) contains a Qualifying Force Majeure Provision, (ii) provides the right to monitor daily balances of flowing natural gas, and (iii) requires the pipeline to make available a detailed accounting indicating a reasonable estimate of daily and month-to-date receipts and deliveries of natural gas.

“Qualifying Force Majeure Provision” will mean a force majeure provision that provides that:

- (a) before the pipeline or storage provider may suspend its performance due to force majeure, the pipeline or storage provider must exercise due diligence and incur reasonable cost to prevent or overcome the event of force majeure;
- (b) the pipeline or storage provider will not be entitled to the benefit of force majeure to the extent its performance is affected solely by: its own negligence or willful misconduct; economic hardship (including the pipeline or storage provider’s ability to sell natural gas, natural gas transportation service, or gas storage service at a higher or more advantageous fee than the fee provided in the contract); breakdown, failure, freezing or breakage of, or the necessity for making repairs or alterations to, any facilities or equipment caused by a failure to properly maintain such facilities or equipment that is reasonably foreseeable; or a failure to satisfy weatherization requirements under applicable law;

- (c) upon declaring force majeure, the pipeline or storage provider must provide notice and reasonably full details describing such force majeure in writing to the Generation Entity; and
- (d) within ten (10) days of a notice by a party of an event or occurrence of force majeure, the unaffected party shall have the right, at its own expense and upon reasonable notice to the other party, to audit and examine copies of the relevant portion of the records and recordings of the other party to the extent reasonably necessary to verify the full details of the event or occurrence of force majeure as described in the notice.

“Qualified Contract” means a form of Firm Gas Storage Agreement or Firm Transportation Agreement that has been submitted to ERCOT by a Generation Entity for certification that such agreement contains a Qualifying Force Majeure Provision, and otherwise meets the requirements as a Firm Gas Storage Agreement or Firm Transportation Agreement, as applicable, which agreement has in turn been so certified in writing by ERCOT pursuant to the ERCOT Protocols.

“Qualifying Pipeline” will mean a pipeline that is (a) (i) a natural gas pipeline subject to the jurisdiction of FERC under the Natural Gas Act (15 U.S.C. Section 717 *et seq.*), (ii) an intrastate natural gas pipeline that is not operated by a “gas utility” under Title 3 of the Texas Utilities Code, or (iii) an intrastate pipeline that is operated by a “gas utility” under Title 3 of the Texas Utilities Code that has certified to the Generation Entity that it does not have any contracts for firm service on such pipeline with human needs customers or local distribution systems that serve human needs customers; and (b) a critical natural gas facility, as defined in PUC Substantive Rule 25.52(c)(2).