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| NPRR Number | [1169](https://www.ercot.com/mktrules/issues/NPRR1169) | NPRR Title | Expansion of Generation Resources Qualified to Provide Firm Fuel Supply Service in Phase 2 of the Service |
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| Date | May 9, 2023 |
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| Submitter’s Information |
| Name | Bryan Sams |
| E-mail Address | Bryan.Sams@calpine.com |
| Company | Calpine Corporation |
| Phone Number | 512-632-4870 |
| Cell Number |  |
| Market Segment | Independent Generator |

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| Comments |

Calpine appreciates the changes that will continue to improve the Firm Fuel Supply Service (FFSS) by including natural gas Resources that utilize firm transportation contracts with natural gas sourced from storage. We offer these comments to Nodal Protocol Revision Request (NPRR) 1169 on top of the 4/12/23 LCRA comments.

One of the most challenging elements of expanding this program has been the definition of “FFSS Qualifying Pipeline.” We are concerned that the current FFSS Qualifying Pipeline definition in NPRR1169 will substantially eliminate the Texas intrastate pipeline system which serves the majority of natural gas power plants in ERCOT.

Following Calpine’s April 12, 2023 comments, Calpine continued to work with Kinder Morgan and other stakeholders on a revised definition that would enable greater participation in the product and establish a performance standard with the following protections:

1. **Ensures sufficient pipeline capacity** by requiring the pipeline owner certify that enough capacity is available on the transportation path between the storage and Generation Resource to enable continuous service even in the event of curtailment.
2. **Eliminates the type of pipelines that have had recent curtailments** by limiting participation to “transportation only” pipelines. This standard eliminates eligibility for distribution pipelines with service behind city-gates which have recently curtailed customers. Additionally, the eligible pipelines have tariffs on file with the Railroad Commission of Texas (RRC) making eligibility easy to verify.
3. **Meets the standard set by Uri**, Calpine’s experience, even during Uri, was that generators with firm transportation on transportation only pipelines, and natural gas sourced from storage, received all of their gas.
4. **Requires registration as a Critical Natural Gas Facility,** which eliminates participation in Emergency Response Service (ERS) and Ancillary Service markets where Load Resources would curtail to meet their obligations.

We believe the revised definition will allow expansion of the FFSS product in a responsible way, provide the signal for investment in greater fuel security, improve resiliency of the gas generation fleet in ERCOT, and make Phase II of this product a success.

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| Revised Cover Page Language |

## None

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| Revised Proposed Protocol Language |

1.3.1.1 Items Considered Protected Information

(1) Subject to the exclusions set out in Section 1.3.1.2, Items Not Considered Protected Information, and in Section 3.2.5, Publication of Resource and Load Information, “Protected Information” is information containing or revealing any of the following:

(a) Base Points, as calculated by ERCOT. The Protected Information status of this information shall expire 60 days after the applicable Operating Day;

(b) Bids, offers, or pricing information identifiable to a specific Qualified Scheduling Entity (QSE) or Resource. The Protected Information status of part of this information shall expire 60 days after the applicable Operating Day, as follows:

(i) Ancillary Service Offers by Operating Hour for each Resource for all Ancillary Services submitted for the Day-Ahead Market (DAM) or any Supplemental Ancillary Services Market (SASM);

(ii) The quantity of Ancillary Service offered by Operating Hour for each Resource for all Ancillary Service submitted for the DAM or any SASM; and

(iii) Energy Offer Curve prices and quantities for each Settlement Interval by Resource. The Protected Information status of this information shall expire within seven days after the applicable Operating Day if required to be posted as part of paragraph (5) of Section 3.2.5 and within two days after the applicable Operating Day if required to be posted as part of paragraph (7) of Section 3.2.5;

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| ***[NPRR1013: Replace paragraph (b) above with the following upon system implementation of the Real-Time Co-Optimization (RTC) project:]***(b) Bids, offers, or pricing information identifiable to a specific Qualified Scheduling Entity (QSE) or Resource. The Protected Information status of part of this information shall expire 60 days after the applicable Operating Day, as follows:(i) Ancillary Service Offers by Operating Hour or Security-Constrained Economic Dispatch (SCED) interval for each Resource for all Ancillary Services submitted for the Day-Ahead Market (DAM) or Real-Time Market (RTM);(ii) The quantity of Ancillary Service offered by Operating Hour or SCED interval for each Resource for all Ancillary Service submitted for the DAM or RTM; and(iii) A Resource’s Energy Offer Curve prices and quantities by Operating Hour or SCED interval. The Protected Information status of this information shall expire within seven days after the applicable Operating Day if required to be posted as part of paragraph (5) of Section 3.2.5 and within two days after the applicable Operating Day if required to be posted as part of paragraph (7) of Section 3.2.5; |

(c) Status of Resources, including Outages, limitations, or scheduled or metered Resource data. The Protected Information status of this information shall expire as follows:

(i) For each Forced Outage, Maintenance Outage, or Forced Derate of a Generation Resource or Energy Storage Resource (ESR) that occurs during or extends into an Operating Day, the Protected Information status of the following information shall expire three days after the applicable Operating Day:

(A) The name and unit code of the Resource affected;

(B) The Resource’s fuel type;

(C) The type of Outage or derate;

(D) The start date/time and the planned and actual end date/time;

(E) The Resource’s applicable Seasonal net maximum sustainable rating;

(F) The available and outaged MW during the Outage or derate; and

(G) The entry in the “nature of work” field in the Outage Scheduler and any other information concerning the cause of the Outage or derate;

(ii) For each Resource Outage or Forced Derate that occurs during, or that extends into, any time period in which ERCOT has declared an Energy Emergency Alert (EEA), ERCOT may immediately disclose the information identified in paragraph (i) above to a state Governmental Authority, the office of the Governor of Texas, the office of the Lieutenant Governor of Texas, or any member of the Texas Legislature, if requested; and

(iii) For all other information, the Protected Information status shall expire 60 days after the applicable Operating Day;

(d) Current Operating Plans (COPs). The Protected Information status of this information shall expire 60 days after the applicable Operating Day;

(e) Ancillary Service Trades, Energy Trades, and Capacity Trades identifiable to a specific QSE or Resource. The Protected Information status of this information shall expire 180 days after the applicable Operating Day;

(f) Ancillary Service Schedules identifiable to a specific QSE or Resource. The Protected Information status of this information shall expire 60 days after the applicable Operating Day;

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| ***[NPRR1013: Replace paragraph (f) above with the following upon system implementation of the Real-Time Co-Optimization (RTC) project:]***(f) Ancillary Service awards identifiable to a specific QSE or Resource. The Protected Information status of this information shall expire 60 days after the applicable Operating Day; |

(g) Dispatch Instructions identifiable to a specific QSE or Resource, except for Reliability Unit Commitment (RUC) commitments and decommitments as provided in Section 5.5.3, Communication of RUC Commitments and Decommitments. The Protected Information status of this information shall expire 180 days after the applicable Operating Day;

(h) Raw and Adjusted Metered Load (AML) data (demand and energy) identifiable to:

(i) A specific QSE or Load Serving Entity (LSE). The Protected Information status of this information shall expire 180 days after the applicable Operating Day; or

(ii) A specific Customer or Electric Service Identifier (ESI ID);

(i) Wholesale Storage Load (WSL) data identifiable to a specific QSE. The Protected Information status of this information shall expire 60 days after the applicable Operating Day;

(j) Settlement Statements and Invoices identifiable to a specific QSE. The Protected Information status of this information shall expire 180 days after the applicable Operating Day;

(k) Number of ESI IDs identifiable to a specific LSE. The Protected Information status of this information shall expire 365 days after the applicable Operating Day;

(l) Information related to generation interconnection requests, to the extent such information is not otherwise publicly available. The Protected Information status of certain generation interconnection request information expires as provided in Section 1.3.1.4, Expiration of Protected Information Status;

(m) Resource-specific costs, design and engineering data, including such data submitted in connection with a verifiable cost appeal;

(n) Congestion Revenue Right (CRR) credit limits, the identity of bidders in a CRR Auction, or other bidding information identifiable to a specific CRR Account Holder. The Protected Information status of this information shall expire as follows:

(i) The Protected Information status of the identities of CRR bidders that become CRR Owners and the number and type of CRRs that they each own shall expire at the end of the CRR Auction in which the CRRs were first sold; and

(ii) The Protected Information status of all other CRR information identified above in item (n) shall expire six months after the end of the year in which the CRR was effective.

(o) Renewable Energy Credit (REC) account balances. The Protected Information status of this information shall expire three years after the REC Settlement period ends;

(p) Credit limits identifiable to a specific QSE;

(q) Any information that is designated as Protected Information in writing by Disclosing Party at the time the information is provided to Receiving Party except for information that is expressly designated not to be Protected Information by Section 1.3.1.2 or that, pursuant to Section 1.3.1.4, is no longer confidential;

(r) Any information compiled by a Market Participant on a Customer that in the normal course of a Market Participant’s business that makes possible the identification of any individual Customer by matching such information with the Customer’s name, address, account number, type of classification service, historical electricity usage, expected patterns of use, types of facilities used in providing service, individual contract terms and conditions, price, current charges, billing record, or any other information that a Customer has expressly requested not be disclosed (“Proprietary Customer Information”) unless the Customer has authorized the release for public disclosure of that information in a manner approved by the Public Utility Commission of Texas (PUCT). Information that is redacted or organized in such a way as to make it impossible to identify the Customer to whom the information relates does not constitute Proprietary Customer Information;

(s) Any software, products of software, or other vendor information that ERCOT is required to keep confidential under its agreements;

(t) QSE, Transmission Service Provider (TSP), and Distribution Service Provider (DSP) backup plans collected by ERCOT under the Protocols or Other Binding Documents;

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| ***[NPRR857: Replace item (t) above with the following upon system implementation and satisfying the following conditions: (1) Southern Cross provides ERCOT with funds to cover the entire estimated cost of the project; and (2) Southern Cross has signed an interconnection agreement with a TSP and the TSP gives ERCOT written notice that Southern Cross has provided it with: (a) Notice to proceed with the construction of the interconnection; and (b) The financial security required to fund the interconnection facilities:]***(t) QSE, Transmission Service Provider (TSP), Direct Current Tie Operator (DCTO), and Distribution Service Provider (DSP) backup plans collected by ERCOT under the Protocols or Other Binding Documents; |

(u) Direct Current Tie (DC Tie) Schedule information. The Protected Information status of this information shall expire 60 days after the applicable Operating Day;

(v) Any Texas Standard Electronic Transaction (TX SET) transaction submitted by an LSE to ERCOT or received by an LSE from ERCOT. This paragraph does not apply to ERCOT’s compliance with:

(i) PUCT Substantive Rules on performance measure reporting;

(ii) These Protocols or Other Binding Documents; or

(iii) Any Technical Advisory Committee (TAC)-approved reporting requirements;

(w) Information concerning a Mothballed Generation Resource’s probability of return to service and expected lead time for returning to service submitted pursuant to Section 3.14.1.9, Generation Resource Status Updates;

(x) Information provided by Entities under Section 10.3.2.4, Reporting of Net Generation Capacity;

(y) Alternative fuel reserve capability and firm gas availability information submitted pursuant to Section 6.5.9.3.1, Operating Condition Notice, Section 6.5.9.3.2, Advisory, and Section 6.5.9.3.3, Watch, and as defined by the Operating Guides;

(z) Non-public financial information provided by a Counter-Party to ERCOT pursuant to meeting its credit qualification requirements as well as the QSE’s form of credit support;

(aa) ESI ID, identity of Retail Electric Provider (REP), and MWh consumption associated with transmission-level Customers that wish to have their Load excluded from the Renewable Portfolio Standard (RPS) calculation consistent with Section 14.5.3, End-Use Customers, and subsection (j) of P.U.C. Subst. R. 25.173, Goal for Renewable Energy;

(bb) Emergency operations plans submitted pursuant to P.U.C. Subst. R. 25.53, Electric Service Emergency Operations Plans;

(cc) Information provided by a Counter-Party under Section 16.16.3, Verification of Risk Management Framework;

(dd) Any data related to Load response capabilities that are self-arranged by the LSE or pursuant to a bilateral agreement between a specific LSE and its Customers, other than data either related to any service procured by ERCOT or non-LSE-specific aggregated data.  Such data includes pricing, dispatch instructions, and other proprietary information of the Load response product;

(ee) Status of Settlement Only Generators (SOGs), including Outages, limitations, or scheduled or metered output data, except that ERCOT may disclose output data from an SOG as part of an extract or forwarded TX SET transaction provided to the LSE associated with the ESI ID of the Premise where the SOG is located. The Protected Information status of this information shall expire 60 days after the applicable Operating Day;

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| ***[NPRR829 and NPRR995: Replace applicable portions of paragraph (ee) above with the following upon system implementation:]***(ee) Status of Settlement Only Generators (SOGs) and Settlement Only Energy Storage System (SOESS), including Outages, limitations, schedules, metered output and withdrawal data, or data telemetered for use in the calculation of Real-Time Liability (RTL) as described in Section 16.11.4.3.2, Real-Time Liability Estimate, except that ERCOT may disclose metered output and withdrawal data from an SOG or SOESS as part of an extract or forwarded TX SET transaction provided to the LSE associated with the ESI ID of the Premise where the SOG is located. The Protected Information status of this information shall expire 60 days after the applicable Operating Day; |

(ff) Any documents or data submitted to ERCOT in connection with an Alternative Dispute Resolution (ADR) proceeding. The Protected Information status of this information shall expire upon ERCOT’s issuance of a Market Notice indicating the disposition of the ADR proceeding pursuant to paragraph (1) of Section 20.9, Resolution of Alternative Dispute Resolution Proceedings and Notification to Market Participants, except to the extent the information continues to qualify as Protected Information pursuant to another paragraph of this Section 1.3.1.1;

(gg) Reasons for and future expectations of overrides to a specific Resource’s High Dispatch Limit (HDL) or Low Dispatch Limit (LDL). The Protected Information status of this information shall expire 60 days after the applicable Operating Day;

(hh) Information provided to ERCOT under Section 16.18, Cybersecurity Incident Notification, except that ERCOT may disclose general information concerning a Cybersecurity Incident in a Market Notice in accordance with paragraph (5) of Section 16.18 to assist Market Participants in mitigating risk associated with a Cybersecurity Incident;

(ii) Information disclosed in response to paragraphs (1)-(4) of the Natural Gas Pipeline Coordination section of Section 22, Attachment K, Declaration of Natural Gas Pipeline Coordination, submitted to ERCOT in accordance with Section 3.21, Submission of Declarations of Natural Gas Pipeline Coordination. The Protected Information status of Resource Outage information shall expire as provided in paragraph (1)(c) of Section 1.3.1.1; and

(jj) Information concerning weatherization activities submitted to, obtained by, or generated by ERCOT in connection with P.U.C. Subst. R. 25.55, Weather Emergency Preparedness, if such information allows the identification of any Resource or Resource Entity.

(kk) Information provided to ERCOT:

(i) By a QSE under paragraph (3) of Section 3.14.5, Firm Fuel Supply Service, as part of an offer to provide Firm Fuel Supply Service (FFSS), except that within ten Business Days of issuing FFSS awards, ERCOT may disclose the identity of all Generation Resources that were offered as primary Generation Resources or alternate Generation Resources to provide FFSS for the most recent procurement period, including prices and quantities offered;

(ii) By a Resource Entity under paragraph (2) of Section 8.1.1.2.1.6, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification, as part of the voluntary process for ERCOT certification of a FFSS Qualified Contract; or

(iii) By a Resource Entity in a Force Majeure Event report required under paragraph (14) of Section 8.1.1.2.16.

## 2.1 DEFINITIONS

**Firm Fuel Supply Service (FFSS) Qualified Contract**

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.

**Firm Fuel Supply Service (FFSS) Qualifying Pipeline**

A pipeline that is:

(a) 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*.), an intrastate natural gas pipeline that is not a “gas utility” under Title 3 of the Texas Utilities Code, or an intrastate pipeline that is owned or operated by a “gas utility” under Title 3 of the Texas Utilities Code that provides only transmission service, in accordance with its gas utility tariff, and has certified to the Generation Entity that sufficient capacity is available on the transportation path between the storage facility and a Generation Resource to provide continuous service in the event of a curtailment; and

(b) A critical natural gas facility, as defined in subsection (c)(2) of P.U.C. SUBST. R. 25.52, Reliability and Continuity of Service.

A pipeline operated by an Entity that participates in ERCOT’s Load Resource program, Emergency Response Service (ERS) program, or any Demand response programs will not be eligible to be an FFSS Qualifying Pipeline.

**Firm Gas Storage Agreement**

An executed and enforceable contract (together with any associated statement of operating conditions) for Firm Service at a natural gas storage facility that:

(a) Contains a Qualifying Force Majeure Provision;

(b) Provides the right to monitor daily balances of storage capacity; and

(c) 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**

Natural gas transportation or storage service that is:

(a) Described as firm under a contract, tariff, or statement of operating conditions;

(b) The highest priority of service available; and

(c) Available on demand and up to the contracted quantities.

**Firm Transportation Agreement**

An executed and enforceable contract (together with any associated statement of operating conditions) for Firm Service on a Firm Fuel Supply Service (FFSS) Qualifying Pipeline that:

(a) Contains a Qualifying Force Majeure Provision;

(b) Provides the right to monitor daily balances of flowing natural gas;

(c) 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; and

(d) In the case of a contract for Firm Service on a FFSS Qualifying Pipeline that is owned or operated by a “gas utility” under Title 3 of the Texas Utilities Code, contains a representation and warranty that the owner or operator of the FFSS Qualifying Pipeline has sufficient capacity to serve all Generation Resources that have contracted for Firm Service without curtailment during a curtailment event (as such term is defined in Title 16 of the Texas Administrative Code).

**Qualifying Force Majeure Provision**

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 natural 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 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.

***3.14.5 Firm Fuel Supply Service***

(1) Each Generation Resource providing Firm Fuel Supply Service (FFSS) must meet technical requirements specified in Section 8.1.1, QSE Ancillary Service Performance Standards, and Section 8.1.1.1, Ancillary Service Qualification and Testing.

(2) ERCOT shall issue an RFP by August 1 of each year soliciting bids from QSEs for Generation Resources to provide FFSS. The RFP shall require bids to be submitted on or before September 1of each year.

(3) QSEs may submit bids individually for one or more Generation Resources to provide FFSS using a bid submission form posted on the ERCOT website. A QSE may not submit a bid for a given Generation Resource unless it is the QSE designated by the Resource Entity associated with that Generation Resource. ERCOT must evaluate bids using criteria identified in an appendix to the RFP. ERCOT will issue FFSS awards for each Generation Resource by September 30 and will post the awards to the MIS Certified Area for each QSE that is awarded an FFSS obligation. The posting will include information such as, but not limited to, the identity of the Resource, the FFSS Standby Fee awarded, the amount of reserved fuel associated with the FFSS award, and MW amount awarded, and the Generation Resource’s initial minimum LSL when providing FFSS. The RFP awards shall cover a period beginning November 15 of the year in which the RFP is issued and ending on March 15 of the second calendar year after the year in which the RFP is issued. A QSE may submit a bid for one or more Generation Resources to provide FFSS beginning in the same year the RFP is issued or beginning in a subsequent year covered by the RFP. An FFSS Resource (FFSSR) shall be considered an FFSSR and is required to provide FFSS from November 15 through March 15 for each year of the awarded FFSS obligation period. ERCOT shall ensure FFSSRs are procured and deployed as necessary to maintain ERCOT System reliability during, or in preparation for, a natural gas curtailment or other fuel supply disruption.

(a) On the bid submission form, the QSE shall disclose information including, but not limited to, the amount of reserved fuel offered, the MW available from the capacity offered, and each limitation of the offered Resource that could affect the Resource’s ability to provide FFSS.

(b) If the QSE offers a Generation Resource as meeting the qualification requirements in paragraph (1)(c) of Section 8.1.1.2.1.6, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification, the QSE must submit as part of its offer a certification for the offered Generation Resource. The certification must include:

(i) Certification that the Generation Entity for the Generation Resource (or an Affiliate) has a Firm Transportation Agreement, firm natural gas supply, and contracted or owned storage capacity meeting the qualification requirements in paragraph (1)(c) of Section 8.1.1.2.1.6;

(ii) The following information regarding the Firm Transportation Agreement:

(A) FFSS Qualifying Pipeline name;

(B) Term;

(C) Primary points of receipt and delivery;

(D) Maximum daily contract quantity (in MMBtu);

(E) Shipper of record; and

(F) Whether the Firm Transportation Agreement provides for ratable receipts and deliveries; and

(iii) The following information regarding the storage arrangements:

(A) Storage facility name;

(B) Term of the Firm Gas Storage Agreement (if applicable);

(C) Maximum storage quantity owned or contracted under the Firm Gas Storage Agreement (in MMBtu); and

(D) Maximum daily withdrawal quantity (in MMBtu).

(c) When a Resource is selected to provide FFSS, the Resource shall complete all applicable testing requirements as specified in Section 8.1.1.2.1.6, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification.

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| ***[NPRR1154: Replace paragraph (c) above with the following upon system implementation:]***(c) When a Resource is selected to provide FFSS, the Resource shall complete all applicable testing requirements as specified in Section 8.1.1.2.1.6, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification. A QSE representing a FFSSR is allowed to provide the FFSS with an alternate Resource previously approved by ERCOT to replace the FFSSR. |

(d) An offer to provide FFSS is an offer to supply an awarded amount of capacity, maintain an awarded amount of fuel, and to designate a specific number of emissions hours for which the awarded FFSSR is obligated to perform in the event that FFSS is deployed. Reserved fuel, emissions hours, and other attributes, in excess of the FFSS awards can be used at the discretion of the QSE as long as the awarded fuel reserves and emissions hours are maintained for the purposes of ERCOT deployment of FFSS.

(4) The QSE for an FFSSR shall ensure that the Resource is prepared and able to come On-Line or remain On-Line in order to maintain Resource availability in the event of a natural gas curtailment or other fuel supply disruption.

(a) When ERCOT issues a Watch for winter weather, ERCOT will notify all Market Participants, including all QSEs representing FFSSRs to begin preparation for potential FFSS deployment. Such preparation may include, but is not limited to, circulation of alternate fuel to its facilities, if applicable; heat fuel oil to appropriate temperatures, if applicable; call out additional personnel as necessary, and be ready to receive a Dispatch Instruction to provide FFSS. An FFSSR may begin consuming a minimum amount of alternate fuel to validate it is ready for an FFSS deployment.

(b) In anticipation of or in the event of a natural gas curtailment or other fuel supply disruption to an FFSSR, the QSE shall notify ERCOT as soon as practicable and may request approval to deploy FFSS to generate electricity. ERCOT shall evaluate system conditions and may approve the QSE’s request. The QSE shall not deploy the FFSS unless approved by ERCOT. Upon approval to deploy FFSS, ERCOT shall issue an FFSS VDI to the QSE.

(c) In conjunction with a QSE notification under paragraph (b) above, the QSE shall also report to ERCOT any environmental limitations that would impair the ability of the FFSSR to provide FFSS for the required duration of the FFSS award.

(d) ERCOT may issue an FFSS VDI without a request from the QSE, however ERCOT shall not issue an FFSS VDI without evidence of an impending or actual fuel supply disruption affecting the FFSSR.

(e) If the FFSSR is generating at a level above the FFSS MW awarded amount and that level of output cannot be sustained for the required duration of the FFSS award, ERCOT may use a manual High Dispatch Limit (HDL) override to ensure the FFSSR can continue to generate at the FFSS MW award level for the entire FFSS award duration.

(f) The FFSSR shall continuously deploy FFSS to generate electricity until the earlier of (i) the exhaustion of the FFSS service duration as defined in the RFP, (ii) the fuel supply disruption no longer exists, or (iii) ERCOT determines the FFSS deployment is no longer needed. Upon satisfying one of these qualifications, ERCOT shall terminate the VDI and the FFSSR shall not be obligated to continue its FFSS deployment for the remainder of the Watch.

(g) A QSE shall notify ERCOT of the anticipated exhaustion of emissions credits or permit allowances at least six hours before the exhaustion of those credits or allowances. Upon receiving such notification, ERCOT shall modify the VDI so the FFSS deployment is terminated upon exhaustion of those credits or allowances.

(h) Upon deployment or recall of FFSS, ERCOT shall notify all Market Participants that such deployment or recall has been made, including the MW capacity of service deployed or recalled.

(5) During or following the deployment of FFSS, the QSE for an FFSSR may request an approval from ERCOT to restock their fuel reserve to restore their FFSS capability. Following approval from ERCOT, a QSE may restock their FFSS obligation. In the event 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.

(6) FFSSRs providing BSS must reserve FFSS capability in addition to the contracted BSS obligation. Any remaining fuel reserve in addition to that required for meeting FFSS and BSS obligations can be used at the QSE’s discretion.

(7) If ERCOT issues an FFSS VDI to an FFSSR for the same Operating Hour where a RUC instruction was issued, for Settlement, ERCOT will consider the RUC instruction as cancelled.

(8) ERCOT will provide a report to the TAC or its designated subcommittee within 45 days of any FFSS deployments, including the Resources deployed and the reason for the deployments.

(9) Any QSE that submits a bid or receives an award for a SWGR to provide FFSS, and the Resource Entity that owns or controls that SWGR, shall:

(a) Not nominate the SWGR to satisfy supply adequacy or capacity planning requirements in any Control Area other than the ERCOT Region during the period of the FFSS obligation; and

(b) Take any further action requested by ERCOT to ensure that ERCOT will be classified as the “Primary Party” for the SWGR under any agreement between ERCOT and another Control Area Operator during the period of the FFSS obligation.

(10) On an annual basis after the FFSS season, ERCOT will provide a report separately for the total amounts from Section 6.6.14.1, Firm Fuel Supply Service Fuel Replacement Costs Recovery, and Section 6.6.14.2, Firm Fuel Supply Service Hourly Standby Fee Payment and Fuel Replacement Cost Recovery, to the TAC or its designated subcommittee.

**6.6.14.1 Firm Fuel Supply Service Fuel Replacement Costs Recovery**

(1) If ERCOT approves a Firm Fuel Supply Service Resource (FFSSR) to switch to consume the reserved fuel and directs or approves a restocking pursuant to paragraph (5) of Section 3.14.5, Firm Fuel Supply Service, ERCOT shall pay the QSE representing the FFSSR for the replacement of burned fuel, if the QSE has:

(a) Complied with the Firm Fuel Supply Service (FFSS) instruction to switch to the reserved fuel;

(b) Submitted a Settlement and billing dispute consistent with the dispute process described in Section 9.14, Settlement and Billing Dispute Process;

(c) Submitted the following within 90 days of the issuance of a Real-Time Market (RTM) Initial Statement for the Operating Day on which the FFSS instruction was issued:

(i) An attestation signed by an officer or executive with authority to bind the QSE stating that the information contained in the dispute is accurate;

(ii) For each deployment of FFSS, the quantity of total fuel consumed for the hours in each instance when FFSS was deployed;

(iii) For thermal units, the input-output equation or other documentation that allows for verification of fuel consumption for the hours when FFSS was deployed;

(iv) The dollar amount and quantity of fuel purchased to replace the consumed fuel;

(v) Sufficient documentation to support the QSE’s determination of the amount and cost of replaced fuel; and

(vi) Any other technical documentation within the possession of the QSE or Resource Entity which ERCOT finds reasonably necessary to verify paragraphs (i) through (v) above. Any additional request from ERCOT for documentation or clarification of previously submitted documentation must be honored within 15 Business Days.

(2) In addition to the requirements under paragraph (1)(c) above, for a Generation Resource that was awarded FFSS using reserved fuel based on a Firm Gas Storage Agreement and is requesting compensation for the cost of the replaced fuel, the QSE or Resource Entity representing the FFSSR must show proof that it purchased and nominated fuel in sufficient quantities (in MMBtu) that was consumed during the FFSS deployment and that its actual receipts and deliveries of such replacement fuel conformed with its nominated quantities.

(3) The Firm Fuel Supply Service Fuel Replacement Cost shall only represent the replacement fuel costs not recovered during the FFSS deployment period through Day-Ahead energy sales and Real-Time energy imbalance settlement revenues related to the Resource with the FFSS award. In addition, the Firm Fuel Supply Service Fuel Replacement Cost shall only include commodity and variable transportation costs directly attributable to the replenishment of fuel for the FFSSR.

(4) ERCOT shall allocate any approved fuel replacement costs to the hours of the corresponding FFSS deployment period when the fuel was consumed following ERCOT’s approval to switch to utilize the awarded FFSS.

8.1.1.2.1.6 Firm Fuel Supply Service Resource Qualification, Testing, and Decertification

(1) Generation Resources that meet the following requirements will be considered qualified to provide Firm Fuel Supply Service (FFSS) and may be selected in the bidding process for FFSS:

(a) Successfully demonstrates dual fuel capability, the ability to establish and burn an alternativeonsite stored fuel, and has onsite fuel storage capability in an amount that satisfies the minimum FFSS capability requirements set forth in the FFSS request for proposal (RFP). This minimum alternative fuel storage capability must be demonstrated such that the Firm Fuel Supply Service Resource (FFSSR) has the capability to operate at the awarded MW value for a period defined in the FFSS RFP. A QSE demonstrates this capability by confirming the following in its bid submission form:

(i) The onsite fuel storage for the FFSSR is sufficient to satisfy the requirements established in the Protocols and the FFSS RFP;

(ii) The FFSSR is capable of being dispatched by SCED but does not have to be qualified for any specific Ancillary Service; and

(iii) The FFSSR is able to begin operation using onsite stored alternative fuel within the period defined in the RFP; or

(b) Has an onsite natural gas or fuel oil storage capability or off-site natural gas storage where the Resource Entity and/or QSE owns and controls the natural gas storage and pipeline to deliver the required amount of reserve natural gas to the Generation Resource from the storage facility in an amount that satisfies the minimum FFSS capability requirements set forth in the FFSS RFP. This minimum alternative storage capability must be demonstrated such that the FFSSR has the capability to operate at the awarded MW value for a period defined in the FFSS RFP. A QSE demonstrates this capability by confirming the following in its bid submission form:

(i) The onsite natural gas or fuel oil or qualifying off-site natural gas fuel storage for the FFSSR is sufficient to satisfy the requirements established in the Protocols and the FFSS RFP;

(ii) The FFSSR is capable of being dispatched by SCED but does not have to be qualified for any specific Ancillary Service; and

(iii) The FFSSR is able to begin operation using onsite stored natural gas or fuel oil or off-site stored natural gas fuel within the period defined in the RFP; or

(c) Meets the following requirements:

(i) The Generation Entity for the Generation Resource (or an Affiliate of such Generation Entity) either owns a storage facility with, or has a Firm Gas Storage Agreement for, sufficient natural gas storage capacity for the offered Generation Resource to deliver the offered MW for the duration requirement specified in the RFP;

(ii) 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 the duration requirement specified in the RFP, and must commit to maintain such quantity of natural gas in storage at all times during the obligation period; and

(iii) The Generation Entity for the Generation Resource (or an Affiliate of such Generation Entity) must have entered into a Firm Transportation Agreement with:

(A) 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 the duration requirement specified in the RFP;

(B) A primary receipt point that is the point of withdrawal for the storage facility used to comply with paragraph (i) above;

(C) A primary delivery point that permits delivery of the natural gas directly to the Generation Resource (including through a plant line or other dedicated lateral); and

(D) A term that includes each hour of November 15 through March 15, *i*.*e*., during the FFSS obligation period.

(iv) 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 to comply with paragraph (i) above rather than a self-owned physical gas storage facility to qualify, then the Firm Gas Storage Agreement must have:

(A) A term that includes each hour of November 15 through March 15, *i*.*e*., during the FFSS obligation period;

(B) A maximum storage quantity not less than the amount of natural gas needed to allow the Generation Resource to deliver the offered MW for the duration requirement specified in the RFP;

(C) A maximum daily withdrawal quantity that permits the Generation Entity (or an Affiliate) to withdraw from storage a daily quantity of natural gas sufficient to allow the Generation Resource to deliver the offered MW for the duration requirement specified in the RFP; and

(D) A point of withdrawal that is a primary receipt point under its Firm Transportation Agreement.

(v) If the Generation Entity will utilize storage owned by it or an Affiliate to comply with paragraph (i) above, 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 natural gas needed to allow the Generation Resource to deliver the offered MW for the duration requirement specified in the RFP;

(B) Withdraw from its storage a daily quantity of natural gas sufficient to allow the Generation Resource to deliver the offered MW for the duration requirement specified in the RFP; and

(C) Withdraw from its storage facility at a point of withdrawal that is a primary receipt point under its Firm Transportation Agreement.

1. The MW offered by the QSE for the Generation Resource may not be less than the Generation Resource’s Low Sustained Limit.

(d) A Generation Resource may participate as an FFSSR under only one of paragraphs (a), (b), or (c) above.

(e) Successfully demonstrates the ability to provide FFSS in order to maintain Resource availability in the event of a natural gas curtailment or other fuel supply disruption consistent with qualifying technologies identified by the Public Utility Commission of Texas (PUCT).

(2) A Generation Entity may, but is not required to, submit 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 to be certified as an FFSS Qualified Contract in accordance with such policies and procedures as ERCOT may develop or require from time to time consistent with the requirements of the ERCOT Protocols.

(a) ERCOT may, but is not obligated to, undertake a review of such agreement and, if acceptable, certify in writing such agreement as an FFSS Qualified Contract. The decision whether to certify such agreement as an FFSS Qualified Contract shall be in ERCOT’s sole discretion.

(b) To the extent that any such agreement is so certified by ERCOT, it shall constitute an FFSS Qualified Contract, and a Generation Entity may rely upon such certification for purposes of qualifying as an FFSSR under paragraph (1)(c) above. Any material change to the ERCOT certified form of an existing FFSS 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 an FFSS Qualified Contract.

(3) A QSE representing an FFSSR must annually demonstrate the FFSSR’s capability to use an onsite stored alternative fuel or reserved fuel sources identified in paragraphs (1)(b) and (1)(c) above and sustain its output for 60 minutes at the maximum awarded MW amount. Each QSE representing an FFSSR must annually complete the test or successfully deploy at the maximum awarded MW amount for at least 60 minutes and inform ERCOT by November 1 of each year. The QSE representing the FFSSR shall show the Resource as “ONTEST” in its COP and through its Real-Time telemetry for the duration of the demonstration.

(4) A QSE representing an FFSSR must ensure the full awarded FFSS capability is available by November 15 of each year awarded in the RFP.

(5) A QSE representing an FFSSR shall update its Availability Plan for an FFSSR to show the FFSSR is unavailable if the FFSSR is not available to come On-Line or generate using reserved fuel. The FFSSR shall continue to be shown as unavailable until it can successfully come On-Line using reserved fuel or completes a successful test as described in paragraph (3) above.

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| ***[NPRR1154: Replace paragraph (5) above with the following upon system implementation:]***(5) A QSE representing an FFSSR shall update its Availability Plan for an FFSSR to show the FFSSR is unavailable if the FFSSR is not available to come On-Line or generate using reserved fuel. The QSE representing an FFSSR may submit an Availability Plan for an alternate Resource previously approved by ERCOT to replace the FFSSR. The FFSSR shall continue to be shown as unavailable until it can successfully come On-Line using reserved fuel or completes a successful test as described in paragraph (3) above. |

(6) If the FFSSR does not reflect that it is available, through its Availability Plan, for the hours for which ERCOT has issued a Watch for winter weather, ERCOT shall claw back and/or withhold the FFSS Standby Fee for 90 days, unless the FFSSR successfully deployed for its entire FFSS award obligation and exhausted emission hours allocated in the RFP for the FFSSR.

(7) If the FFSSR fails to come On-Line or stay On-Line during an FFSS deployment due to a fuel-related issue, ERCOT shall claw back and/or withhold the FFSS Standby Feefor 90 days. A QSE representing an FFSSR may coordinate with ERCOT and seek approval to take the FFSSR Off-Line for no more than four hours to perform critical maintenance associated with consuming the reserved fuel. If the QSE coordinates with ERCOT and receives approval to take the FFSSR unit Off-Line and brings the FFSSR back On-Line within four hours or less, this shall not count as failure to stay On-Line for the purpose of this paragraph.

(8) If the FFSSR comes On-Line or continues generating using reserved fuel during an FFSS deployment, but fails to telemeter on average an HSL equal to or greater than 95% of the awarded FFSS MW value due to a fuel-related issue, ERCOT shall claw back and/or withhold the FFSS Standby Feefor 90 days, in proportion to the difference between the awarded MW value and the average telemetered HSL over the FFSS deployment period.

(9) If the FFSSR comes On-Line or continues generating using reserved fuel during an FFSS deployment but fails to generate on average at the minimum of either 95% of the MW level instructed by ERCOT or 95% of the awarded FFSS MW value due to a fuel-related issue, ERCOT shall claw back and/or withhold the FFSS Standby Fee for 90 days, in proportion to the difference between the average MW level instructed by ERCOT over the FFSS deployment period and the corresponding average generation of the FFSSR.

(10) If the FFSSR fails to come On-Line or stay On-Line during an FFSS deployment due to a non-fuel related issue, ERCOT shall claw back and/or withhold the FFSS Standby Feefor 15 days.

(11) If the FFSSR comes On-Line or continues generating using reserved fuel during an FFSS deployment but fails to telemeter on average an HSL equal to or greater than 95% of the awarded FFSS MW value due to a non-fuel related issue, ERCOT shall claw back and/or withhold the FFSS Standby Feefor 15 days, in proportion to the difference between the awarded MW value and the average telemetered HSL over the FFSS deployment period.

(12) If the FFSSR comes On-Line or continues generating using reserved fuel during an FFSS deployment but fails to generate on average at the minimum of either 95% of the MW level instructed by ERCOT or 95% of the awarded FFSS MW value due to a non-fuel related issue, ERCOT shall claw back and/or withhold the FFSS Standby Fee for 15 days, in proportion to the difference between the average MW level instructed by ERCOT over the FFSS deployment period and the corresponding average generation of the FFSSR.

(13) Notwithstanding paragraphs (6) through (12) above, if the FFSSR is otherwise available but fails to come On-Line or is forced Off-Line due to a transmission system outage or transmission system limitation that would prevent the unit from being deployed to LSL, ERCOT shall not claw back the hourly FFSS Standby Fee. If conditions described in paragraphs (8) and (9) occur for the same deployment period, ERCOT shall only claw back the larger amount calculated in paragraph (8) or (9). If conditions described in paragraphs (11) and (12) occur for the same deployment period, ERCOT shall only claw back the larger amount calculated in paragraph (11) or (12).

(14) If an 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:

(a) If the basis of the non-performance is a Force Majeure Event affecting the FFSSR, a description of the Force Majeure Event giving rise to the non-performance, with reasonably full details of such Force Majeure Event;

(b) If the basis of the non-performance is the unavailability of the FFSSR’s FFSS Qualifying Pipeline or natural gas storage facility:

(i) a copy of the relevant Firm Transportation Agreement and/or Firm Gas Storage Agreement;

(ii) 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;

(iii) the applicable storage inventory level for the gas day prior to the Force Majeure Event until the gas day after the Force Majeure Event;

(iv) a copy of the force majeure notice from the FFSS Qualifying Pipeline operator or storage provider; and

(v) the capacity and flow data from the FFSS Qualifying Pipeline or storage facility for the gas day prior to the Force Majeure Event until the gas day after the Force Majeure Event;

(c) 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;

(d) The FFSSR’s heat rate;

(e) The applicable nominations, and if applicable, no-notice delivered, on the FFSS Qualifying Pipeline from the gas day prior to the Force Majeure Event until the day after the Force Majeure Event; and

(f) 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 FFSS Qualifying Pipeline operator or storage provider, the Generation Entity will exercise any contractual rights it has to request such information from the FFSS Qualifying Pipeline operator or storage provider, as applicable.

(15) Unless the agreement is a Certified Contract, if the relevant Firm Transportation Agreement and/or Firm Gas Storage Agreement does not ensure firmness in the manner required by the ERCOT Protocols, ERCOT shall revoke the award and claw back and/or withhold all of the FFSS Hourly Standby Fees for all of the days of the obligation period.

(16) For an FFSSR, a Force Majeure Event will be treated the same as any other cause for unavailability for the purposes of calculating the FFSSR’s Firm Fuel Supply Service Hourly Rolling Equivalent Availability Factor.

(17) It will constitute a material change under the ERCOT Protocols if a primary Generation Resource or any alternate Generation Resource that qualified to provide FFSS under paragraph (1)(c) above ceases to satisfy any of the requirements to qualify as an FFSSR under paragraph (1)(c) above (for example, but not limited to, if the Firm Transportation Agreement is terminated or if the FFSS Qualifying Pipeline no longer qualifies as an FFSS Qualifying Pipeline).

(a) The QSE of such Generation Resource will be required to notify ERCOT within two business days of such a material change.

(b) ERCOT may decertify a primary Generation Resource or alternate Generation Resource if such material change is, in ERCOT’s sole opinion, an adverse change (for example, but not limited to, if a Firm Transportation Agreement is terminated and not replaced with a comparable, qualifying Firm Transportation Agreement).