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| NPRR Number | [1120](https://www.ercot.com/mktrules/issues/NPRR1120) | NPRR Title | Create Firm Fuel Supply Service |
| Date Posted | | January 31, 2022 | |
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| Requested Resolution | | Urgent – Urgent status is necessary to ensure ERCOT can procure Firm Fuel Supply Service (FFSS) for next winter. | |
| Nodal Protocol Sections Requiring Revision | | 1.3.1.2, Items Not Considered Protected Information  2.1, Definitions  2.2, Acronyms and Abbreviations  3.1.1, Role of ERCOT  3.1.4.3, Reporting for Planned Outages, Maintenance Outages, and Rescheduled Outages of Resource and Transmission Facilities  3.9, Current Operating Plan (COP)  3.14.5, Firm Fuel Supply Service (new)  4.3, QSE Activities and Responsibilities in the Day-Ahead  6.6.13, Firm Fuel Supply Service Capability (new)  6.6.13.1, Firm Fuel Supply Service Fuel Replacement Costs Recovery (new)  6.6.13.2, Firm Fuel Supply Service Hourly Standby Fee Payment and Fuel Replacement Cost Recovery (new)  6.6.13.3, Firm Fuel Supply Service Capacity Charge (new)  8.1.1.2.1.7, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification (new)  9.5.3, Real-Time Market Settlement Charge Types  9.14.7, Disputes for RUC Make-Whole Payment for Fuel Costs | |
| Related Documents Requiring Revision/Related Revision Requests | | None | |
| Revision Description | | This Nodal Protocol Revision Request (NPRR) creates a new reliability service, Firm Fuel Supply Service (FFSS).  This new reliability service is developed consistent with directives from the Legislature (provided in Section 18 of [Senate Bill 3, 87(R)](https://capitol.texas.gov/tlodocs/87R/billtext/pdf/SB00003F.pdf#navpanes=0) that are now found in PURA 39.159(c)(2), requiring ancillary or reliability services to address reliability during extreme cold weather conditions) and the Public Utility Commission of Texas (PUC) (*see e*.*g*. PUC [Project No. 52373, Approval of Blueprint for Wholesale Electric Market Design and Directives to ERCOT](http://interchange.puc.texas.gov/Documents/52373_336_1180125.PDF), ordering ERCOT to develop a firm-fuel product that provides additional grid reliability and resiliency during extreme cold weather and compensates generation resources that meet a higher resiliency standard).  By necessity this NPRR focuses on components that require accommodation in the Settlement and Billing system, since those components require the longest lead time to design. Additional requirements will be reflected in the request for proposal (RFP) that will be forthcoming.  FFSS is provided to maintain system reliability in the event of a natural gas curtailment or other fuel supply disruption. Requirements that apply to each Generation Resource providing FFSS include:   * Meeting the technical requirements specified in the new Section 8.1.1.2.1.7; and * Being prepared and able to come On-Line during a natural gas curtailment or other fuel supply disruption.   A QSE representing an FFSSR when instructed by ERCOT must restore its FFSS capability following the deployment of FFSS within the restocking period defined in the RFP.  In the interest of timely implementation by Winter 2022-23, this NPRR is limited in scope. Other NPRRs may be introduced in the future to expand or revise the product for seasons after Winter 2022-23. | |
| Reason for Revision | | Addresses current operational issues.  Meets Strategic goals (tied to the [ERCOT Strategic Plan](http://www.ercot.com/content/wcm/lists/144926/ERCOT_Strategic_Plan_2019-2023.pdf) or directed by the ERCOT Board).  Market efficiencies or enhancements  Administrative  Regulatory requirements  Other: (explain)  *(please select all that apply)* | |
| Business Case | | This NPRR introduces a new reliability product, FFSS, intended to assist in the maintenance of system reliability in the event of a natural gas curtailment or other fuel supply disruption.  In the interest of timely implementation by Winter 2022-23, this NPRR defines the FFFSS and creates a Settlement framework that allows ERCOT to build Settlement systems to meet the Winter 2022-23 timeline. ERCOT intends to provide more details in the RFP and may also subsequently file one or more additional NPRRs to memorialize the pertinent details in the Protocols as ERCOT receives further guidance from the Commission. | |

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| Market Segment | Not applicable |

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| **Market Rules Notes** |

Please note that the following NPRR(s) also propose revisions to the following section(s):

* NPRR1085, Ensuring Continuous Validity of Physical Responsive Capability (PRC) and Dispatch through Timely Changes to Resource Telemetry and Current Operating Plans (COPs)
  + Section 3.9
* NPRR1108, ERCOT Shall Approve or Deny All Resource Outage Requests
  + Section 3.1.1

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| Proposed Protocol Language Revision |

**1.3.1.2 Items Not Considered Protected Information**

(1) Notwithstanding the definition of “Protected Information” in Section 1.3.1.1, Items Considered Protected Information, the following items are not Protected Information even if so designated:

(a) Data comprising Load flow cases, which may include estimated peak and off-peak Demand of any Load;

(b) Existence of Power System Stabilizers (PSSs) at each interconnected Generation Resource and PSS status (in service or out of service);

(c) Reliability Must-Run (RMR) Agreements;

(d) Studies, reports and data used in ERCOT’s assessment of whether an RMR Unit satisfies ERCOT’s criteria for operational necessity to support ERCOT System reliability but only if they have been redacted to exclude Protected Information under Section 1.3.1.1;

(e) Status of RMR Units;

(f) Black Start Agreements;

(g) Firm Fuel Supply Service (FFSS) awards;

(h) RMR Settlement charges and payments;

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| ***[NPRR885: Insert items (i) and (j) below upon system implementation and renumber accordingly:]***  (i) Must-Run Alternative (MRA) Agreements;  (j) Settlement charges and payments for MRA Service; |

(i) Within two Business Days of a request from a potential generating Facility for a full resource interconnection study, the county in which the Facility is located, Facility fuel type(s), Facility nameplate capacity, and anticipated Commercial Operations Date(s) and signed generation interconnection agreements; and

(j) Any other information specifically designated in these Protocols or in the PUCT Substantive Rules as information to be posted to the ERCOT website or Market Information System (MIS) Secure Area that is not specified as information that is subject to the requirements of Section 1.3, Confidentiality.

(2) Protected Information that Receiving Party is permitted or required to disclose or use under the Protocols or under an agreement between Receiving Party and a Disclosing Party does not cease to be regarded as Protected Information in all other circumstances not encompassed by these Protocols or such agreement by virtue of the permitted or required disclosure or use under these Protocols or such agreement.

## 2.1 DEFINITIONS

**Availability Plan**

An hourly representation of availability of Reliability Must-Run (RMR) Units or an hourly representation of the capability of Black Start Resources as submitted to ERCOT by 0600 in the Day-Ahead by Qualified Scheduling Entities (QSEs) representing RMR Units or Black Start Resources. An hourly representation of availability of Firm Fuel Supply Service Resources (FFSSRs) as submitted to ERCOT 14 days prior to Operating Day by QSEs representing FFSSRs.

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| ***[NPRR885: Replace the above definition “Availability Plan” with the following upon system implementation:]***  **Availability Plan**  An hourly representation of availability of Reliability Must-Run (RMR) Units, Must-Run Alternatives (MRAs), or an hourly representation of the capability of Black Start Resources as submitted to ERCOT by 0600 in the Day-Ahead by Qualified Scheduling Entities (QSEs) representing RMR Units, MRAs, or Black Start Resources. An hourly representation of availability of Firm Fuel Supply Service Resources (FFSSRs) as submitted to ERCOT 14 days prior to Operating Day by QSEs representing FFSSRs. |

**Firm Fuel Supply Service (FFSS)**

A service provided by certain Generation Resources in order to maintain system reliability in the event of a natural gas curtailment or other fuel supply disruption.

**Firm Fuel Supply Service Resource (FFSSR)**

A Generation Resource that has an obligation to provide Firm Fuel Supply Service (FFSS).

## 2.2 ACRONYMS AND ABBREVIATIONS

FFSS Firm Fuel Supply Service

FFSSR Firm Fuel Supply Service Resource

***3.1.1 Role of ERCOT***

(1) ERCOT shall coordinate and use reasonable efforts, consistent with Good Utility Practice, to accept, approve or reject all Outage schedules for maintenance, repair, and construction of both Transmission Facilities and Resources within the ERCOT System. ERCOT may reject an Outage schedule under certain circumstances, as set forth in these Protocols.

(2) ERCOT’s responsibilities with respect to Outage Coordination include:

(a) Approving or rejecting requests for Planned Outages and Maintenance Outages of Transmission Facilities for Transmission Service Providers (TSPs) in coordination with and based on information regarding all Entities’ Planned Outages and Maintenance Outages;

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| ***[NPRR857: Replace paragraph (a) above with the following upon system implementation:]***  (a) Approving or rejecting requests for Planned Outages and Maintenance Outages of Transmission Facilities for Transmission Service Providers (TSPs) and Direct Current Tie Operators (DCTOs) in coordination with and based on information regarding all Entities’ Planned Outages and Maintenance Outages; |

(b) Assessing the adequacy of available Resources, based on planned and known Resource Outages, relative to forecasts of Load, Ancillary Service requirements, and reserve requirements;

(c) Coordinating and approving or rejecting schedules for Planned Outages of Resources scheduled to occur within 45 days after request;

(d) Coordinating and approving or rejecting schedules for Planned Outages of Reliability Must-Run (RMR) Units under the terms of the applicable RMR Agreements;

(e) Coordinating and approving or rejecting Outages associated with Black Start Resources under the applicable Black Start Unit Agreements;

(f) Coordinating and approving or rejecting Outages associated with Firm Fuel Supply Service Resources (FFSSRs);

(g) Coordinating and approving or rejecting Outages affecting Subsynchronous Resonance (SSR) vulnerable Generation Resources that do not have SSR Mitigation in the event of five or six concurrent transmission Outages;

(h) Reviewing and coordinating changes to existing 12-month Resource Outage plans to determine how changes will affect ERCOT System reliability, including Resource Outages not previously included in the Outage plan;

(i) Monitoring how Planned Outage schedules compare with actual Outages;

(j) Posting all proposed and approved schedules for Planned Outages, Maintenance Outages, and Rescheduled Outages of Transmission Facilities on the Market Information System (MIS) Secure Area under Section 3.1.5.13, Transmission Report;

(k) Creating aggregated schedules of Planned Outages for Resources and posting those schedules on the MIS Secure Area under Section 3.2.3, Short-Term System Adequacy Reports;

(l) Monitoring Transmission Facilities and Resource Forced Outages and Maintenance Outages of immediate nature and implementing responses to those Outages as provided in these Protocols;

(m) Establishing and implementing communication procedures:

(i) For a TSP to request approval of Transmission Facilities Planned Outage and Maintenance Outage schedules; and

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| ***[NPRR857: Replace item (i) above with the following upon system implementation:]***  (i) For a TSP or a DCTO to request approval of Transmission Facilities Planned Outage and Maintenance Outage schedules; and |

(ii) For a Resource Entity’s designated Single Point of Contact to submit Outage plans and to coordinate Resource Outages;

(n) Establishing and implementing record-keeping procedures for retaining all requested Planned Outages, Maintenance Outages, Rescheduled Outages, and Forced Outages; and

(o) Planning and analyzing Transmission Facilities Outages.

**3.1.4.3 Reporting for Planned Outages, Maintenance Outages, and Rescheduled Outages of Resource and Transmission Facilities**

(1) Each Resource Entity and TSP shall submit information regarding proposed Planned Outages, Maintenance Outages, and Rescheduled Outages of Transmission Facilities or Planned Outages and Maintenance Outages of Generation Resources under procedures adopted by ERCOT. The obligation to submit that information applies to each Resource Entity that is responsible to operate or maintain a Generation Resource that is part of or that affects the ERCOT System. The obligation to submit that information applies to each TSP or Resource Entity that is responsible to operate or maintain Transmission Facilities that are part of or affect the ERCOT System. A Resource Entity or TSP is also obligated to submit information for Transmission Facilities or Generation Resources that are not part of the ERCOT System or that do not affect the ERCOT System if that information is required for regional security coordination as determined by ERCOT.

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| ***[NPRR857 and NPRR1014: Replace applicable portions of paragraph (1) above with the following upon system implementation:]***  (1) Each Resource Entity, TSP, and DCTO shall submit information regarding proposed Planned Outages, Maintenance Outages, and Rescheduled Outages of Transmission Facilities or Planned Outages and Maintenance Outages of Generation Resources or Energy Storage Resources (ESRs) under procedures adopted by ERCOT. The obligation to submit that information applies to each Resource Entity that is responsible to operate or maintain a Generation Resource or ESR that is part of or that affects the ERCOT System. The obligation to submit that information applies to each TSP, DCTO, or Resource Entity that is responsible to operate or maintain Transmission Facilities that are part of or affect the ERCOT System. A Resource Entity, TSP, or DCTO is also obligated to submit information for Transmission Facilities or Generation Resources or ESRs that are not part of the ERCOT System or that do not affect the ERCOT System if that information is required for regional security coordination as determined by ERCOT. |

(2) Before taking an RMR or Black Start Resource (“Reliability Resources”) out of service for a Planned Outage or Maintenance Outage, the Single Point of Contact for that Reliability Resource must obtain ERCOT’s approval of the schedule of the Planned Outage or Maintenance Outage. ERCOT shall review and approve or reject each proposed Planned Outage or Maintenance Outage Schedule under this Section and the applicable Agreements.

(3) An FFSSR shall not schedule or request a Planned Outage that would occur during the period of November 15 through March 15.

**3.9 Current Operating Plan (COP)**

(1) Each Qualified Scheduling Entity (QSE) that represents a Resource must submit a Current Operating Plan (COP) under this Section.

(2) ERCOT shall use the information provided in the COP to calculate the High Ancillary Service Limit (HASL) and Low Ancillary Service Limit (LASL) for each Resource for the Reliability Unit Commitment (RUC) processes.

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| ***[NPRR1007: Replace paragraph (2) above with the following upon system implementation of the Real-Time Co-Optimization (RTC) project:]***  (2) ERCOT shall use the information provided in the COP to calculate operating limits and Ancillary Service capabilities for each Resource for the Reliability Unit Commitment (RUC) processes. |

(3) ERCOT shall monitor the accuracy of each QSE’s COP as outlined in Section 8, Performance Monitoring.

(4) A QSE must notify ERCOT that it plans to have a Resource On-Line by means of the COP using the Resource Status codes listed in paragraph (5)(b)(i) of Section 3.9.1, Current Operating Plan (COP) Criteria. The QSE must show the Resource as On-Line with a Resource Status of ONRUC, indicating a RUC process committed the Resource for all RUC-Committed Intervals. A QSE may only use a RUC-committed Resource during that Resource’s RUC-Committed Interval to meet the QSE’s Ancillary Service Supply Responsibility if the Resource has been committed by the RUC process to provide Ancillary Service.

(5) To reflect changes to a Resource’s capability, each QSE shall report by exception, changes to the COP for all hours after the Operating Period through the rest of the Operating Day.

(6) When a QSE updates its COP to show changes in Resource Status, the QSE shall update for each On-Line Resource, either an Energy Offer Curve under Section 4.4.9, Energy Offers and Bids, or Output Schedule under Section 6.4.2, Output Schedules.

(7) Each QSE, including QSEs representing Reliability Must-Run (RMR) Units, Firm Fuel Supply Service Resource (FFSSRs), or Black Start Resources, shall submit a revised COP reflecting changes in Resource availability as soon as reasonably practicable, but in no event later than 60 minutes after the event that caused the change.

(8) Each QSE representing a Qualifying Facility (QF) must submit a Low Sustained Limit (LSL) that represents the minimum energy available, in MW, from the unit for economic dispatch based on the minimum stable steam delivery to the thermal host plus a justifiable reliability margin that accounts for changes in ambient conditions.

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 a request for proposals (RFP) 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 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 by November 1 and will post the awards to the MIS Certified Area for each QSE that is awarded an FFSS obligation. The posting will identify the Resource, the FFSS Standby Fee awarded, and MW amount awarded. The period of FFSS obligation shall begin November 15 of the year in which the FFSS award is issued and shall end on March 15 of the third calendar year after the year in which the FFSS award is issued. An FFSS Resource (FFSSR) is required to provide FFSS from November 15 through March 15 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 each limitation of the offered Resource that could affect the Resource’s ability to provide FFSS.

(b) When a Resource is selected to provide FFSS, the Resource shall complete all applicable testing requirements as specified in Section 8.1.1.2.1.7, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification.

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

(a) Upon natural gas curtailment or other fuel supply disruption to an FFSSR, the QSE for the FFSSR shall notify ERCOT and 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.

(b) Additionally, in the event of widespread natural gas curtailments or other fuel supply disruption, ERCOT may deploy FFSS on some or all FFSSRs by issuing a Hotline call.

(5) Following the deployment of FFSS, each QSE shall restore its FFSS capability as instructed by ERCOT. During the restoration of FFSS capability, the QSE shall show the FFSSR to be unavailable in the Availability Plan.

(6) Any QSE that submits a bid or receives an award for a Switchable Generation Resource (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.

**4.3 QSE Activities and Responsibilities in the Day-Ahead**

(1) During the Day-Ahead, a Qualified Scheduling Entity (QSE):

(a) Must submit its Current Operating Plan (COP) and update its COP as required in Section 3.9, Current Operating Plan (COP); and

(b) May submit Three-Part Supply Offers, Day-Ahead Market (DAM) Energy-Only Offers, DAM Energy Bids, Energy Trades, Self-Schedules, Capacity Trades, Direct Current Tie (DC Tie) Schedules, Ancillary Service Offers, Ancillary Service Trades, Self-Arranged Ancillary Service Quantities, and Point-to-Point (PTP) Obligation bids as specified in this Section.

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| ***[NPRR1008 and NPRR1014: Replace applicable portions of paragraph (b) above with the following upon system implementation of the Real-Time Co-Optimization (RTC) project for NPRR1008; or upon system implementation for NPRR1014:]***  (b) May submit Three-Part Supply Offers, Day-Ahead Market (DAM) Energy-Only Offers, DAM Energy Bids, Energy Bid/Offer Curves, Energy Trades, Self-Schedules, Capacity Trades, Direct Current Tie (DC Tie) Schedules, Resource-Specific Ancillary Service Offers, DAM Ancillary Service Only Offers, Ancillary Service Trades, Self-Arranged Ancillary Service Quantities, and Point-to-Point (PTP) Obligation bids as specified in this Section. |

(2) By 0600 in the Day-Ahead, each QSE representing Reliability Must-Run (RMR) Units, Firm Fuel Supply Service (FFSS) Resources (FFSSR), or Black Start Resources shall submit its Availability Plan to ERCOT indicating availability of RMR Units, FFSSR, and Black Start Resources for the Operating Day and any other information that ERCOT may need to evaluate use of the units.

6.6.13 Firm Fuel Supply Service Capability

6.6.13.1 Firm Fuel Supply Service Fuel Replacement Costs Recovery

(1) If ERCOT instructs an FFSSR to switch to consume the onsite stored fuel, ERCOT shall pay the QSE representing the FFSSR for the replacement of burned fuel, if the QSE has:

(a) Complied with the FFSS instruction to switch to the onsite stored 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) The quantity of fuel consumed for the hours 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 burned fuel;

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

(vi) Any other technical documentation ERCOT finds necessary to verify the quantity and cost of fuel consumption for the hours when FFSS was deployed. Any additional request from ERCOT for documentation or clarification of previously submitted documentation must be honored within ten Business Days.

(2) 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 and Real-Time settlement revenues.

(3) ERCOT shall allocate any approved fuel replacement costs to the hours of the FFSS deployment period when the fuel was consumed.

6.6.13.2 Firm Fuel Supply Service Hourly Standby Fee Payment and Fuel Replacement Cost Recovery

(1) ERCOT shall pay an Hourly Standby Fee to a QSE representing a Firm Fuel Supply Service Resource (FFSSR). This standby fee is determined through a competitive bidding process, with an adjustment for reliability based on a rolling availability greater than or equal to 99% of the awarded FFSS capability.

(2) The Firm Fuel Supply Service Resource will be considered available when calculating the Firm Fuel Supply Service Hourly Rolling Equivalent Availability Factor during any successful FFSS deployment and during the period defined in the FFSS request for proposal (RFP) to restore FFSS capability following the instruction from ERCOT. In the event ERCOT does not issue an instruction to restore FFSS capability, the FFSSR shall be eligible to receive FFSS payments through March 15 of the current calendar year.

(3) The FFSS Hourly Standby Fee is subject to reduction and claw-back provisions as described in Section 8.1.1.2.1.7, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification.

(4) ERCOT shall pay an FFSS Hourly Standby Fee payment to each QSE for each FFSSR. The FFSS payment for each hour of November 15, through March 15, during the FFSS obligation is calculated as follows:

FFSSAMT *q, r* = (-1) \*(FFSSSBF *q, r +* FFSSFRC *q, r*)

Where:

FFSSSBF *q, r* = FFSSPR *q, r* \* FFSSCRF *q, r* \* FFSSARF *q, r*

And:

FFSS Capacity Reduction Factor

If (FFSSTCAP *q, r* ≥ FFSSACAP *q, r*)

Then: FFSSCRF *q, r* = 1

Otherwise: FFSSCRF *q, r* = Max (0, 1 – 2 \* (FFSSACAP *q, r* – FFSSTCAP *q, r*) **/**

FFSSACAP *q, r*)

FFSS Availability Reduction Factor

If (FFSSHREAF *q, r* ≥ 0.99)

Then: FFSSARF *q, r* = 1

Otherwise: FFSSARF *q, r* = Max (0, 1 - (0.99 - FFSSHREAF *q, r*) \* 2)

FFSS Hourly Rolling Equivalent Availability Factor

If the FFSSR is a Combined Cycle Resource:

Then: FFSSHREAF *q, train* = [max *train,hr* (max(FFSEDFLAG *q, train, hr*,



FFSSAFLAG *q, ccgr, hr*)\* (min(HSL *q, ccgr, hr*, FFSSACAP*q,*

*train* )))] / FFSSACAP *q, train*)



Otherwise:

FFSSHREAF *q, r* = max(FFSEDFLAG *q, r, hr*, FFSSAFLAG *q,r,hr*)\* (min(HSL *q, r, hr*, FFSSACAP*q, r*))) / FFSSACAP *q, r*)



Availability for a Combined Cycle Train will be determined pursuant to terms set forth in the RFP but no more than once per hour.

The above variables are defined as follows:

| Variable | Unit | Definition |
| --- | --- | --- |
| FFSSAMT *q, r* | $ | *Firm Fuel Supply Service Amount per QSE per Resource by hour*—The payment to QSE *q* for the Firm Fuel Supply Service (FFSS) provided by Resource *r*, for the hour, calculated each hour of November 15 through March 15 during the awarded FFSS obligation period. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| FFSSPR *q, r* | $ per hour | *Firm Fuel Supply Service Price per QSE per Resource*—The standby price of FFSSR *r* represented by QSE *q*, as specified in the FFSS award. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| FFSSCRF *q, r* | none | *Firm Fuel Supply Service* Capacity Reduction Factor per QSE per Resource by hour—The capacity reduction factor for the FFSSR *r*, represented by QSE *q*, for the hour. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| HSL *q, r, hi* | MW | *High Sustained Limit*—The HSL of a Generation Resource *r* represented by QSE *q* as submitted in the COP, for the hour *h*. Where for a combined cycle Resource *r* is a Combined Cycle Generation Resource. |
| FFSSFRC *q, r* | $ per hour | *Firm Fuel Supply Service Fuel Replacement Cost* —The fuel costs and fees to replace the burned fuel, not recovered during the FFSS deployment period, for FFSSR *r* represented by QSE *q* for each FFSS instructed hour. Where for a Combined Cycle Train, the Resource r is the Combined Cycle Train |
| FFSSSBF *q, r* | $ | *Firm Fuel Supply Service Standby Fee per QSE per Resource by hour*—The standby fee to QSE *q* for the Firm Fuel Supply Service (FFSS) provided by FFSSR *r*, for the hour. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| FFSSTCAP *q, r* | MW | *Firm Fuel Supply Service Testing Capacity* per QSE per Resource—The tested capacity of FFSSR *r*, represented by QSE *q*, for the hour. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| FFSSACAP *q, r* | MW | *Firm Fuel Supply Service Awarded Capacity per QSE per Resource*—The awarded FFSS capacity of FFSSR *r*, represented by QSE *q* as specified in the FFSS award, applicable to each hour of November 15 through March 15 during the awarded FFSS obligation period. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| FFSSARF *q, r* | none | *Firm Fuel Supply Service Availability Reduction Factor per QSE per Resource by hour*—The availability reduction factor of FFSSR *r* represented by QSE *q* for the hour. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| FFSSHREAF *q, r* | none | *Firm Fuel Supply Service Hourly Rolling Equivalent Availability Factor per QSE per Resource by hour*—The equivalent availability factor of the FFSSR *r* represented by QSE *q* over 1,452 hours, for the hour. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| FFSSAFLAG *q, r, hr* | none | *Firm Fuel Supply Service Availability Flag per QSE per Resource by hour*—The flag of the availability of FFSSR *r* represented by QSE *q*, 1 for available and 0 for unavailable, for the hour. The availability flag shall be determined based on FFSSR availability for the current operating hour and the previous 1,451 hours of November 15 through March 15 during the awarded FFSS obligation period. Where for a Combined Cycle Train, the Resource *r* is a Combined Cycle Generation Resource within the Combined Cycle Train. |
| FFSEDFLAG *q, r, hr* | none | *Firm Fuel Supply Event Deployment Flag per QSE per Resource by hour*—The flag of successful FFSS deployment of the FFSSR *r* including hours in the period defined in the RFP following the instruction from ERCOT to restore FFSS capability represented by QSE *q*, 1 for available and 0 for unavailable, for the hour. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| *q* | none | A QSE |
| *r* | none | A FFSSR |
| *hr* | none | The index of a given hour and the previous 1,451 hours counted only during each hour of November 15 through March 15 during the awarded FFSS obligation period, or during the period as defined in the FFSS RFP |
| *h* | none | The Operating Hour |
| *train* | none | A Combined Cycle Train |
| *ccgr* | none | A Combined Cycle Generation Resource within the Combined Cycle Train |

(5) The total of the payments to each QSE for all FFSSRs represented by this QSE for a given hour is calculated as follows:

FFSSAMTQSETOT *q* = FFSSAMT *q, r*

The above variables are defined as follows:

| Variable | Unit | Definition |
| --- | --- | --- |
| FFSSAMTQSETOT *q* | $ | *Firm Fuel Supply Service Amount QSE Total per QSE*⎯The total of the payments to QSE *q* for FFSS provided by all the FFSS Resources represented by this QSE for the hour. |
| FFSSAMT *q, r* | $ | *Firm Fuel Supply Service Amount per QSE per Resource*—The standby payment to QSE *q* for FFSS provided by Resource *r*, for the hour. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| *q* | none | A QSE. |
| *r* | none | A FFSSR. |

6.6.13.3 Firm Fuel Supply Service Capacity Charge

(1) ERCOT shall allocate the total Firm Fuel Supply Service (FFSS) capacity and fuel replacement payment to the QSEs representing Loads based on an hourly LRS. The resulting charge to each QSE for a given hour is calculated as follows:

LAFFSSAMT *q* = (-1) \* FFSSAMTTOT \* HLRS *q*

Where:

FFSSAMTTOT = FFSSAMTQSETOT *q*

The above variables are defined as follows:

|  |  |  |
| --- | --- | --- |
| Variable | Unit | Definition |
| LAFFSSAMT *q* | $ | *Load-Allocated Firm Fuel Supply Service Amount per QSE*—The charge allocated to QSE *q* for the FFSS, for the hour. |
| FFSSAMTQSETOT *q* | $ | *Firm Fuel Supply Service Amount QSE Total per QSE*⎯The total of the payments to QSE *q* for FFSS provided by all the FFSSRs represented by this QSE for the hour. |
| FFSSAMTTOT | $ | *Firm Fuel Supply Service Amount QSE Total ERCOT-Wide —* The total of the payments to all QSEs for FFSS for the hour. |
| HLRS *q* | none | The hourly LRS calculated for QSE *q* for the hour. See Section 6.6.2.4, QSE Load Ratio Share for an Operating Hour. |
| *Q* | none | A QSE. |

8.1.1.2.1.7 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 considered 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 RFP. This minimum alternative fuel 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 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 Security-Constrained Economic Dispatch (SCED); and

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

(b) Successfully demonstrates the ability to provide FFSS in order to maintain system reliability 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 QSE operating an FFSSR must annually demonstrate the FFSSR’s capability to burn an onsite stored alternative fuel and sustain its output for 60 minutes at the maximum awarded MW amount. Each QSE operating an FFSSR must complete the test and inform ERCOT by September 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.

(3) A QSE Operating an FFSSR must ensure the full awarded FFSS capability is available by November 15.

(4) A QSE representing the FFSSR shall update its Availability Plan for a FFSSR to show the FFSSR is unavailable if the FFSSR fails to come On-Line or generate using onsite stored alternative fuel during an FFSS deployment. The FFSSR shall continue to be shown as unavailable until it can successfully come On-Line using onsite stored alternative fuel or completes a successful test as described in paragraph (1)(a)(iii) above.

(5) If the FFSSR fails to come On-Line during an FFSS deployment due to a fuel-related issue, ERCOT shall claw back the Firm Fuel Supply Service Standby Feefor the previous 90 days and may, at its sole discretion, decertify the FFSSR.

(6) If the FFSSR comes On-Line during an FFSS deployment but fails to generate at the minimum of either the MW level instructed by ERCOT or the awarded MW value due to a fuel-related issue, ERCOT shall claw back the Firm Fuel Supply Service Standby Feefor the previous 90 days in proportion to the difference between the MW level instructed by ERCOT and the actual generation of the FFSSR.

(7) If the FFSSR fails to come On-Line during an FFSS deployment due to a non-fuel related issue, ERCOT shall claw back the Firm Fuel Supply Service Standby Feefor the previous 90 days.

(8) If the FFSSR comes On-Line during an FFSS deployment but fails to generate at the minimum of either the MW level instructed by ERCOT or the warded MW value due to a non-fuel related issue, ERCOT shall claw back the Firm Fuel Supply Service Standby Feefor the previous 90 days in proportion to the difference between the MW level instructed by ERCOT and the actual generation of the FFSSR.

(9) Notwithstanding paragraphs (5), (6), (7), and (8) above, if, in ERCOT’s sole discretion, the FFSSR is available but fails to come On-Line due to a transmission Outage, ERCOT shall not claw back the hourly Firm Fuel Supply Service Standby Fee.

***9.5.3 Real-Time Market Settlement Charge Types***

(1) ERCOT shall provide, on each RTM Settlement Statement, the dollar amount for each RTM Settlement charge and payment. The RTM Settlement “Charge Types” are:

(a) Section 5.7.1, RUC Make-Whole Payment;

(b) Section 5.7.2, RUC Clawback Charge;

(c) Section 5.7.3, Payment When ERCOT Decommits a QSE-Committed Resource;

(d) Section 5.7.4.1, RUC Capacity-Short Charge;

(e) Section 5.7.4.2, RUC Make-Whole Uplift Charge;

(f) Section [5.7.5, RUC Clawback Payment](#_Toc109528011);

(g) Section [5.7.6, RUC Decommitment Charge](#_Toc109528014);

(h) Section 6.6.3.1, Real-Time Energy Imbalance Payment or Charge at a Resource Node;

(i) Section 6.6.3.2, Real-Time Energy Imbalance Payment or Charge at a Load Zone;

(j) Section 6.6.3.3, Real-Time Energy Imbalance Payment or Charge at a Hub;

(k) Section 6.6.3.4, Real-Time Energy Payment for DC Tie Import;

(l) Section 6.6.3.5, Real-Time Payment for a Block Load Transfer Point;

(m) Section 6.6.3.6, Real-Time Energy Charge for DC Tie Export Represented by the QSE Under the Oklaunion Exemption;

(n) Section 6.6.3.7, Real-Time High Dispatch Limit Override Energy Payment;

(o) Section 6.6.3.8, Real-Time High Dispatch Limit Override Energy Charge;

(p) Section 6.6.4, Real-Time Congestion Payment or Charge for Self-Schedules;

(q) Section 6.6.5.1.1.1, Base Point Deviation Charge for Over Generation;

(r) Section 6.6.5.1.1.2, Base Point Deviation Charge for Under Generation;

(s) Section 6.6.5.2, IRR Generation Resource Base Point Deviation Charge;

(t) Section 6.6.5.4, Base Point Deviation Payment;

(u) Section 6.6.6.1, RMR Standby Payment;

(v) Section 6.6.6.2, RMR Payment for Energy;

(w) Section 6.6.6.3, RMR Adjustment Charge;

(x) Section 6.6.6.4, RMR Charge for Unexcused Misconduct;

(y) Section 6.6.6.5, RMR Service Charge;

(z) Section 6.6.6.6, Method for Reconciling RMR Actual Eligible Costs, RMR and MRA Contributed Capital Expenditures, and Miscellaneous RMR Incurred Expenses;

(aa) Paragraph (2) of Section 6.6.7.1, Voltage Support Service Payments;

(bb) Paragraph (4) of Section 6.6.7.1;

(cc) Section 6.6.7.2, Voltage Support Charge;

(dd) Section 6.6.8.1, Black Start Hourly Standby Fee Payment;

(ee) Section 6.6.8.2, Black Start Capacity Charge;

(ff) Section 6.6.9.1, Payment for Emergency Power Increase Directed by ERCOT;

(gg) Section 6.6.9.2, Charge for Emergency Power Increases;

(hh) Section 6.6.10, Real-Time Revenue Neutrality Allocation;

(ii) Section 6.6.13.1, Firm Fuel Supply Service Fuel Replacement Costs Recovery

(jj) Section 6.6.13.2, Firm Fuel Supply Service Hourly Standby Fee Payment and Fuel Replacement Cost Recovery;

(kk) Section 6.6.13.3, Firm Fuel Supply Service Capacity Charge;

(ll) Paragraph (1)(a) of Section 6.7.1, Payments for Ancillary Service Capacity Sold in a Supplemental Ancillary Services Market (SASM) or Reconfiguration Supplemental Ancillary Services Market (RSASM);

(mm) Paragraph (1)(b) of Section 6.7.1;

(nn) Paragraph (1)(c) of Section 6.7.1;

(oo) Paragraph (1)(d) of Section 6.7.1;

(pp) Paragraph (1)(a) of Section 6.7.2, Payments for Ancillary Service Capacity Assigned in Real-Time Operations;

(qq) Paragraph (1)(b) of Section 6.7.2;

(rr) Paragraph (1)(a) of Section 6.7.2.1, Charges for Infeasible Ancillary Service Capacity Due to Transmission Constraints;

(ss) Paragraph (1)(b) of Section 6.7.2.1;

(tt) Paragraph (1)(c) of Section 6.7.2.1;

(uu) Paragraph (1)(d) of Section 6.7.2.1;

(vv) Paragraph (1)(a) of Section 6.7.3, Charges for Ancillary Service Capacity Replaced Due to Failure to Provide;

(ww) Paragraph (1)(b) of Section 6.7.3;

(xx) Paragraph (1)(c) of Section 6.7.3;

(yy) Paragraph (1)(d) of Section 6.7.3;

(zz) Paragraph (2) of Section 6.7.4, Adjustments to Cost Allocations for Ancillary Services Procurement;

(aaa) Paragraph (3) of Section 6.7.4;

(bbb) Paragraph (4) of Section 6.7.4;

(ccc) Paragraph (5) of Section 6.7.4;

(ddd) Paragraph (7) of Section 6.7.5, Real-Time Ancillary Service Imbalance Payment or Charge (Real-Time Ancillary Service Imbalance Amount);

(eee) Paragraph (7) of Section 6.7.5, (Real-Time Reliability Deployment Ancillary Service Imbalance Amount);

(fff) Paragraph (8) of Section 6.7.5, (Real-Time RUC Ancillary Service Reserve Amount);

(ggg) Paragraph (8) of Section 6.7.5, (Real-Time Reliability Deployment RUC Ancillary Service Reserve Amount);

(hhh) Section 6.7.6, Real-Time Ancillary Service Imbalance Revenue Neutrality Allocation (Load-Allocated Ancillary Service Imbalance Revenue Neutrality Amount);

(iii) Section 6.7.6, (Load-Allocated Reliability Deployment Ancillary Service Imbalance Revenue Neutrality Amount);

(jjj) Section 7.9.2.1, Payments and Charges for PTP Obligations Settled in Real-Time; and

(kkk) Section 9.16.1, ERCOT System Administration Fee.

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| --- |
| ***[NPRR841, NPRR863, NPRR885, NPRR917, NPRR963, NPRR995, NPRR1012, NPRR1014, and NPRR1054: Replace applicable portions of paragraph (1) above with the following upon system implementation for NPRR841, NPRR863, NPRR885, NPRR917, NPRR963, NPRR995, NPRR1014, or NPRR1054; or upon system implementation of the Real-Time Co-Optimization (RTC) project for NPRR1012:]***  (1) ERCOT shall provide, on each RTM Settlement Statement, the dollar amount for each RTM Settlement charge and payment. The RTM Settlement “Charge Types” are:  (a) Section 5.7.1, RUC Make-Whole Payment;  (b) Section 5.7.2, RUC Clawback Charge;  (c) Section 5.7.3, Payment When ERCOT Decommits a QSE-Committed Resource;  (d) Section 5.7.4.1, RUC Capacity-Short Charge;  (e) Section 5.7.4.2, RUC Make-Whole Uplift Charge;  (f) Section [5.7.5, RUC Clawback Payment](#_Toc109528011);  (g) Section [5.7.6, RUC Decommitment Charge](#_Toc109528014);  (h) Section 6.6.3.1, Real-Time Energy Imbalance Payment or Charge at a Resource Node;  (i) Section 6.6.3.2, Real-Time Energy Imbalance Payment or Charge at a Load Zone;  (j) Section 6.6.3.3, Real-Time Energy Imbalance Payment or Charge at a Hub;  (k) Section 6.6.3.4, Real-Time Energy Payment for DC Tie Import;  (l) Section 6.6.3.5, Real-Time Payment for a Block Load Transfer Point;  (m) Section 6.6.3.6, Real-Time High Dispatch Limit Override Energy Payment;  (n) Section 6.6.3.7, Real-Time High Dispatch Limit Override Energy Charge;  (o) Section 6.6.3.8, Real-Time Payment or Charge for Energy from a Settlement Only Distribution Generator (SODG), Settlement Only Transmission Generator (SOTG), Settlement Only Distribution Energy Storage System (SODESS), or Settlement Only Transmission Energy Storage System (SOTESS);  (p) Section 6.6.4, Real-Time Congestion Payment or Charge for Self-Schedules;  (q) Section 6.6.5.2, Set Point Deviation Charge for Over Generation;  (r) Section 6.6.5.2.1, Set Point Deviation Charge for Under Generation;  (s) Section 6.6.5.3, Controllable Load Resource Set Point Deviation Charge for Over Consumption;  (t) Section 6.6.5.3.1, Controllable Load Resource Set Point Deviation Charge for Under Consumption;  (u) Section 6.6.5.4, IRR Generation Resource Set Point Deviation Charge;  (v) Section 6.6.5.4, Set Point Deviation Payment;  (w) Section 6.6.5.5, Energy Storage Resource Set Point Deviation Charge for Over Performance;  (x) Section 6.6.5.5.1, Energy Storage Resource Set Point Deviation Charge for Under Performance;  (y) Section 6.6.6.1, RMR Standby Payment;  (z) Section 6.6.6.2, RMR Payment for Energy;  (aa) Section 6.6.6.3, RMR Adjustment Charge;  (bb) Section 6.6.6.4, RMR Charge for Unexcused Misconduct;  (cc) Section 6.6.6.5, RMR Service Charge;  (dd) Section 6.6.6.6, Method for Reconciling RMR Actual Eligible Costs, RMR and MRA Contributed Capital Expenditures, and Miscellaneous RMR Incurred Expenses;  (ee) Section 6.6.6.7, MRA Standby Payment;  (ff) Section 6.6.6.8, MRA Contributed Capital Expenditures Payment;  (gg) Section 6.6.6.9, MRA Payment for Deployment Event;  (hh) Section 6.6.6.10, MRA Variable Payment for Deployment;  (ii) Section 6.6.6.11, MRA Charge for Unexcused Misconduct;  (jj) Section 6.6.6.12, MRA Service Charge;  (kk) Section 6.6.13.1, Firm Fuel Supply Service Fuel Replacement Costs Recovery  (ll) Section 6.6.13.2, Firm Fuel Supply Service Hourly Standby Fee Payment and Fuel Replacement Cost Recovery;  (mm) Section 6.6.13.3, Firm Fuel Supply Service Capacity Charge;  (nn) Paragraph (3) of Section 6.6.7.1, Voltage Support Service Payments;  (oo) Paragraph (5) of Section 6.6.7.1;  (pp) Section 6.6.7.2, Voltage Support Charge;  (qq) Section 6.6.8.1, Black Start Hourly Standby Fee Payment;  (rr) Section 6.6.8.2, Black Start Capacity Charge;  (ss) Section 6.6.9.1, Payment for Emergency Operations Settlement;  (tt) Section 6.6.9.2, Charge for Emergency Operations Settlement;  (uu) Section 6.6.10, Real-Time Revenue Neutrality Allocation;  (vv) Section 6.6.11.1, Emergency Response Service Capacity Payments;  (ww) Section 6.6.11.2, Emergency Response Service Capacity Charge;  (xx) Section 6.7.4, Real-Time Settlement for Updated Day-Ahead Market Ancillary Service Obligations;  (yy) Section 6.7.5.2, Regulation Up Service Payments and Charges;  (zz) Section 6.7.5.3, Regulation Down Service Payments and Charges;  (aaa) Section 6.7.5.4, Responsive Reserve Payments and Charges;  (bbb) Section 6.7.5.5 , Non-Spinning Reserve Service Payments and Charges;  (ccc) Section 6.7.5.6 , ERCOT Contingency Reserve Service Payments and Charges;  (ddd) Section 6.7.5.7 , Real-Time Derated Ancillary Service Capability Payment;  (eee) Section 6.7.5.8 , Real-Time Derated Ancillary Service Capability Charge;  (fff) Section 6.7.6, Real-Time Ancillary Service Revenue Neutrality Allocation;  (ggg) Section 7.9.2.1, Payments and Charges for PTP Obligations Settled in Real-Time; and  (hhh) Section 9.16.1, ERCOT System Administration Fee. |

(2) In the event that ERCOT is unable to execute the Day-Ahead Market (DAM), ERCOT shall provide, on each RTM Settlement Statement, the dollar amount for the following RTM Congestion Revenue Right (CRR) Settlement charges and payments:

(a) Section 7.9.2.4, Payments for FGRs in Real-Time; and

(b) Section 7.9.2.5, Payments and Charges for PTP Obligations with Refund in Real-Time.

***9.14.7 Disputes for RUC Make-Whole Payment for Fuel Costs***

(1) If the actual price paid for delivered natural gas for a specific Resource during a Reliability Unit Commitment (RUC)-Committed Interval is greater than Fuel Index Price (FIP) adjusted by the proxy fuel adder, X, defined in the Verifiable Cost Manual (i.e., FIP \* (1+X)), then the QSE may file a Settlement dispute for that Resource’s RUC Make-Whole Payment. The maximum amount that may be recovered through this dispute process is the difference between the RUC Guarantee based on the actual price paid and the fuel price of FIP \* (1+X). The QSE must provide documentation (invoices) that identifies intra-day costs of natural gas consumed during the RUC-Committed Interval. Such documentation is necessary to justify recovery of natural gas costs, which is limited to the actual fuel amount (MMBtus) consumed during RUC-Committed Intervals. All documentation submitted by the QSE for natural gas costs incurred intra-day must show a nexus from the seller or distributor of natural gas products to the QSE, Resource Entity or Generation Entity as the ultimate buyer. The QSE must demonstrate that the seller or distributor has procured natural gas fuel intra-day. A Power Purchase or Tolling Agreement (PPA) filed as documentation of proof of fuel costs will not be accepted unless the PPA was signed prior to July 16, 2008, and is not between Affiliates, subsidiaries, or partners.

(2) If the actual price paid for the delivered fuel oil used to replace oil consumed during a RUC-Committed Interval is greater than Fuel Oil Price (FOP) adjusted by the proxy fuel adder, X, defined in the Verifiable Cost Manual (i.e., FOP \* (1+X)), then the QSE may file a Settlement dispute for the Resource’s RUC Make-Whole Payment. The maximum amount that may be recovered through this dispute process is the difference between the RUC Guarantee based on the actual price paid and the adjusted price, FOP \* (1+X).

(3) If the QSE representing the Generation Resource made a Three-Part Supply Offer into the DAM based on FIP and had to run on fuel oil in a RUC-Committed Hour with an active Three-Part Supply Offer based on the adjusted FIP, the QSE may file a Settlement dispute to recover the difference between the RUC Guarantee based actual price paid for delivered fuel oil and the fuel price of FIP \* (1+X).

(4) When filing a Settlement dispute under paragraph (2) or (3) above, the QSE must provide documentation (invoices) that identifies purchases of fuel oil by the QSE, Resource Entity, or Generation Entity to replace oil consumed for a RUC-Committed Interval. In addition, the QSE must provide proof that the Resource actually consumed fuel oil during the RUC-Committed Interval. Proof of actual consumption may be based on the Resource’s technical specifications or flow meters as appropriate. Documentation of fuel oil purchases must show that these were made no later than seven Business Days after the end of the last consecutive RUC-Committed Interval. Replacement fuel oil costs are limited to the actual gallons/barrels of fuel oil consumed during RUC-Committed Intervals.

(5) ERCOT may, in its sole discretion, consider documentation types other than those specifically listed in paragraphs (1) and (4) above when offered by a QSE in support of its recovery of fuel costs for RUC deployments.

(6) Notwithstanding the provisions in this section, QSEs representing Firm Fuel Supply Service Resources (FFSSRs) do not qualify for recovery of their actual fuel costs as described under this section for the hours when FFSS is being deployed.