Board Report

TAC Review/Justification of Recommendation	☒ Revision Request ties to Reason for Revision as explained in Justification ☒ Impact Analysis reviewed and impacts are justified as explained in Justification ☒ Opinions were reviewed and discussed ☒ Comments were reviewed and discussed (if applicable) ☐ Other: (explain)
ERCOT Board Decision	On 8/20/24, the ERCOT Board voted unanimously to recommend approval of VCMRR039 as recommended by TAC in the 6/24/24 TAC Report.

Opinions	
Credit Review	Not applicable
Independent Market Monitor Opinion	IMM has no opinion on VCMRR039.
ERCOT Opinion	ERCOT supports approval of VCMRR039.
ERCOT Market Impact Statement	ERCOT Staff has reviewed VCMRR039 and believes the market impact for VCMRR039, along with NPRR1216 and OBDRR051, implements the Emergency Pricing Program (EPP) as directed by the PUCT.

Sponsor	
Name	Ino Gonzalez
E-mail Address	Ino.Gonzalez@ercot.com
Company	ERCOT
Phone Number	512-248-3954
Cell Number	
Market Segment	Not applicable

Market Rules Staff Contact	
Name	Cory Phillips

Board Report

E-Mail Address	cory.phillips@ercot.com
Phone Number	512-248-6464

Comments Received	
Comment Author	**Comment Summary**
None	

Market Rules Notes

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

- VCMRR040, Methodology for Calculating Fuel Adders for Coal-Fired Resources
  - Section 3.4

Proposed Verifiable Cost Manual Language Revision

3.4 Additional Rules for Submitting Fuel Costs

Commented [CP1]: Please note VCMRR040 also proposes revisions to this section.

(1) Filing Entities that have been approved for verifiable costs will receive a default fuel adder of $0.50/MMBtu, unless the Filing Entity elects to submit an actual fuel adder ($/MMBtu) for each Resource for verification and approval by ERCOT. For a coal-fired or lignite-fired Resource, the default fuel adder will be set quarterly to the maximum of $0.50/MMBtu or the Coal Fuel Adder (CF)($/MMBtu), where CF is determined by ERCOT quarterly as described in Section 14, Appendices, Appendix 11, Procedure for Determining the Fuel Adder for Coal and Lignite Resources with Approved Verifiable Costs. The default fuel adder will remain the default amount specified above until the Filing Entity establishes an actual fuel adder in those verifiable costs and the Filing Entity must continue to provide actual fuel costs as prescribed in paragraph (2) below. The fuel adder is included in the value of X for the Resource (VOXR) as described in Section 14, Appendix 6, Calculation and Application of Proxy Heat Rate and the Value of X for the Resource.

(2) Any Filing Entity that submits an actual fuel adder must provide documentation that establishes the historical variable costs for fuel, transportation, spot fuel, storage, and any additional verifiable cost associated with fuel contracts that can be easily differentiated from the standard commodity cost of fuel and clearly attributable to the Resource for the period. The fuel adder for a rolling 12-month period is the difference between the Filing Entity's average fuel price paid (including only variable fees) during the period and the fuel price utilized by ERCOT for the corresponding Resource. The Filing Entity shall provide rolling 12-month supporting data to verify total fuel price for all purchased volumes to support the actual Resource fuel consumption. Data to support these costs should include, but are not limited to, accounting ledger entries, invoices, and copies of fuel contracts. In addition, the actual costs used to calculate the fuel adder may include variable costs associated with, but not limited to, the following categories: transportation,

commodity, deliveries, storage, injection, withdrawal, and imbalance fees. Other variable costs not described herein may be included if approved by ERCOT.

(3) Notwithstanding paragraph (2) above, fuel adders shall not include actual fuel purchases used in the calculation of the RUC Guarantee as described in Protocol Section 9.14.7, Disputes for RUC Make-Whole Payment for Fuel Costs, or in the calculation of the Operating Losses Payment Amount as described in Protocol Section 6.8.2, Recovery of Operating Losses During an LCAP or ECAP Effective Period.

(4) Review and approval of fuel costs follows the same timeline as verifiable costs; however, ERCOT may require additional time to verify the fuel costs based on the complexity of the submission. In such case, ERCOT will notify the Filing Entity if additional time is needed. For clarification on the submission timeline for the fuel adder, please see the table below. The fuel adder will be implemented the first day of the month after fuel costs have been approved.

Submission Months	Submission Period	ERCOT Review Period[1]
March of previous year to February of current year	April	May-June
September of previous year to August of current year	October	November-December

[1] ERCOT will approve fuel adders during the Review Period unless it determines additional time is needed.

ERCOT Impact Analysis Report

VCMRR Number	039	VCMRR Title	Related to NPRR1216, Implementation of Emergency Pricing Program
Impact Analysis Date		January 23, 2024	
Estimated Cost/Budgetary Impact		None.	
Estimated Time Requirements		No project required. This Verifiable Cost Manual Revision Request (VCMRR) can take effect upon implementation of Nodal Protocol Revision Request (NPRR) 1216, Implementation of Emergency Pricing Program	
ERCOT Staffing Impacts (across all areas)		Ongoing Requirements: No impacts to ERCOT staffing.	
ERCOT Computer System Impacts		No impacts to ERCOT computer systems.	
ERCOT Business Function Impacts		No impacts to ERCOT business functions.	
Grid Operations & Practices Impacts		No impacts to ERCOT grid operations and practices.	

Evaluation of Interim Solutions or Alternatives for a More Efficient Implementation
None offered.

Comments
There are no additional impacts to this VCMRR beyond what was captured in the Impact Analysis for NPRR1216.

Board Report

VCMRR Number	040	VCMRR Title	Methodology for Calculating Fuel Adders for Coal-Fired Resources
Date of Decision		August 20, 2024	
Action		Recommended Approval	
Timeline		Normal	
Estimated Impacts		Cost/Budgetary: None Project Duration: No project required	
Proposed Effective Date		The first of the month following Public Utility Commission of Texas (PUCT) approval	
Priority and Rank Assigned		Not applicable	
Requested Resolution		Normal	
Verifiable Cost Manual Sections Requiring Revision		3.4, Additional Rules for Submitting Fuel Costs Appendix 11, Procedure for Determining the Fuel Adder for Coal and Lignite Resources with Approved Verifiable Costs	
Related Documents Requiring Revision/Related Revision Requests		None	
Revision Description		This Verifiable Cost Manual Revision Request (VCMRR) removes the necessity for ERCOT to purchase an annual coal price index subscription for use in the calculation of the quarterly manual coal fuel adder and describes a methodology for a Qualified Scheduling Entity (QSE) to submit "Actual Coal Fuel Adders" (ACFA) similar to the current process for natural gas Resources.	
Reason for Revision		☐ Strategic Plan Objective 1 – Be an industry leader for grid reliability and resilience ☒ Strategic Plan Objective 2 - Enhance the ERCOT region's economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers ☐ Strategic Plan Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice	

Board Report

	by fostering innovation, investing in our people, and emphasizing the importance of our mission ☐ Administrative ☐ Regulatory requirements ☐ ERCOT Board/PUCT Directive *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)*
Justification of Reason for Revision and Market Impacts	Currently, ERCOT must purchase an annual coal price index subscription in order to calculate the quarterly manual coal fuel adder. This VCMRR eliminates that requirement, resulting in reduced costs to ERCOT. In addition to the cost savings, this VCMRR removes the quarterly manual process of calculating and updating fuel adders for coal-fired Resources. However, all coal-fired Resources with approved "Verifiable Costs" will continue to receive at a minimum the default fuel adder of $0.50/MMBtu. If the default fuel adder is insufficient to cover actual costs incurred, a QSE can submit an ACFA for the Resource as described in this VCMRR, which aligns ACFA submissions with a process similar to fuel adder submissions for natural gas Resources. A Resource with an approved ACFA will receive a fuel adder equal to the maximum of $0.50/MMBtu of the approved ACFA.
WMS Decision	On 6/5/24, WMS voted unanimously to recommend approval of VCMRR040 as submitted. All Market Segments participated in the vote. On 7/10/24, WMS voted unanimously to endorse and forward to TAC the 6/5/24 WMS Report and 4/23/24 Impact Analysis for VCMRR040. All Market Segments participated in the vote.
Summary of WMS Discussion	On 6/5/24, participants noted Resource Cost Working Group (RCWG) review of VCMRR040. On 7/10/24, participants reviewed the 4/23/24 Impact Analysis.
TAC Decision	On 7/31/24, TAC voted unanimously to recommend approval of VCMRR040 as recommended by WMS in the 7/10/24 WMS Report. All Market Segments participated in the vote.
Summary of TAC Discussion	On 7/31/24, there was no additional discussion beyond TAC review of the items below.

Board Report

TAC Review/Justification of Recommendation	[X] Revision Request ties to Reason for Revision as explained in Justification [X] Impact Analysis reviewed and impacts are justified as explained in Justification [X] Opinions were reviewed and discussed [X] Comments were reviewed and discussed (if applicable) [ ] Other: (explain)
ERCOT Board Decision	On 8/20/24, the ERCOT Board voted unanimously to recommend approval of VCMRR040 as recommended by TAC in the 7/31/24 TAC Report.

Opinions	
Credit Review	Not applicable
Independent Market Monitor Opinion	IMM has no opinion on VCMRR040.
ERCOT Opinion	ERCOT supports approval of VCMRR040.
ERCOT Market Impact Statement	ERCOT Staff has reviewed VCMRR040 and believes it provides a positive market impact by eliminating the requirement to purchase an annual coal price index subscription, thereby reducing costs; by removing the quarterly manual process of calculating and updating fuel adders for coal-fired Resources; and by aligning the ACFA submissions process to a process similar to fuel adder submissions for natural gas Resources.

Sponsor	
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Company	ERCOT
Phone Number	512-632-7927 / 512-248-3971
Cell Number	
Market Segment	Not applicable

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Market Rules Staff Contact	
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Comments Received	
Comment Author	**Comment Summary**
None	

Market Rules Notes

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

- VCMRR039, Related to NPRR1216, Implementation of Emergency Pricing Program
  - Section 3.4

Proposed Verifiable Cost Manual Language Revision

3.4 Additional Rules for Submitting Fuel Costs

(1) ~~Filing Entities~~ All Resources that have been approved for V~~v~~erifiable C~~c~~osts will receive a default fuel adder of $0.50/MMBtu, unless the Filing Entity elects to submit an actual fuel adder ($/MMBtu) for each Resource for verification and approval by ERCOT. An actual fuel adder can be an "Actual Natural Gas Fuel Adder" (ANGFA) for natural gas Resources, or an "Actual Coal Fuel Adder" (ACFA) for coal-fired or lignite-fired Resources. For ~~a~~ coal-fired or lignite-fired Resource~~s~~, with ACFAs ($/MMBtu), the applicable methodology to calculate the ACFA is ~~default fuel adder will be set quarterly to the maximum of $0.50/MMBtu or the Coal Fuel Adder (CF)($/MMBtu), where CF is determined by ERCOT quarterly as~~ described in Section 14, Appendices, Appendix 11, Procedure for Determining the Actual Coal Fuel Adder (ACFA) for Coal and Lignite Resources with Approved Verifiable Costs. The default fuel adder for all Resources with Verifiable Costs will remain ~~the~~a $0.50/MMBtu default amount ~~specified above~~ until the Filing Entity establishes an ~~actual fuel adder~~ANGFA or ACFA. ~~in those verifiable costs and~~ Once an ANGFA or ACFA has been approved, the Filing Entity must continue to provide actual fuel costs as prescribed in paragraph (2) or (3) below, as applicable; failure to do so will cause the ANGFA or ACFA to be reset to a default $0.50/MMBtu fuel adder value. The fuel adder is included in the value of X for the Resource (VOXR) as described in Section 14, Appendix 6, Calculation and Application of Proxy Heat Rate and the Value of X for the Resource.

(2) Any Filing Entity that submits an ~~actual fuel adder~~ ANGFA must provide documentation that establishes the historical variable costs for fuel, transportation, spot fuel, storage, and

any additional Vverifiable Ceost associated with fuel contracts that can be easily differentiated from the standard commodity cost of fuel and clearly attributable to the Resource for the period. The fuel adder for a rolling 12-month period is the difference between the Filing Entity's average fuel price paid (including only variable fees) during the period and the fuel price utilized by ERCOT for the corresponding Resource. The Filing Entity shall provide rolling 12-month supporting data to verify total fuel price for all purchased volumes to support the actual Resource fuel consumption. Data to support these costs should include, but are not limited to, accounting ledger entries, invoices, and copies of fuel contracts. In addition, the actual costs used to calculate the fuel adder may include variable costs associated with, but not limited to, the following categories: transportation, commodity, deliveries, storage, injection, withdrawal, and imbalance fees. Other variable costs not described herein may be included if approved by ERCOT.

(3) Any Filing Entity that submits an ACFA must provide documentation for a rolling six month period to support the actual costs or index prices used to value the commodity and any included variable transportation costs used in the calculation of the ACFA. Data to support actual costs should include, but are not limited to, accounting ledger entries, invoices or indexes for commodity and transportation costs.

(43) Notwithstanding paragraph (2) above, fuel adders for ANGFAs shall not include actual fuel purchases used in the calculation of the RUC Guarantee as described in Protocol Section 9.14.7, Disputes for RUC Make-Whole Payment for Fuel Costs.

(54) Review and approval of ~~fuel costs~~ an ANGFA or an ACFA follows the same timeline as Vverifiable Ceosts; however, ERCOT may require additional time to verify the fuel costs based on the complexity of the submission. In such case, ERCOT will notify the Filing Entity if additional time is needed. For clarification on the submission timeline for the ~~fuel adder~~ANGFA or ACFA, please see the table below. The fuel adder for the next period will be implemented the first day of the month after fuel costs have been approved or as soon as practicable if the ERCOT review period has passed.

~~Submission Months~~	~~Submission Period~~	~~ERCOT Review Period[1]~~
~~March of previous year to February of current year~~	~~April~~	~~May-June~~
~~September of previous year to August of current year~~	~~October~~	~~November-December~~

Submission Period	Submitted Months (Natural Gas)	Submitted Months (Coal/Lignite)	ERCOT Review Period[1]
April	March of previous year to February of current year	September of previous year to February of current year	May-June
October	September of previous year to August of current year	March of current year to August of current year	November-December

[1] ERCOT will approve fuel adders during the rReview pPeriod unless it determines additional time is needed.

Appendix 11: Procedure for Determining the Actual Coal Fuel Adder (ACFA) for Coal and Lignite Resources with Approved Verifiable Costs

The fuel adder for coal and lignite Resources will be determined as follows:

Fuel adder for next period ($/MMBtu) = Max ($0.50, ACFA)

Where,

ACFA ($/MMBtu) = Actual Coal Fuel Adder

Filing Entities that elect to submit an ACFA ($/MMBtu) for a Resource for verification and approval by ERCOT should utilize the following methodology:

(1) The ACFA submission should include three components: a coal commodity price ($/MMBtu), a coal transportation price ($/MMBtu), and the average Fuel Index Price (FIP) ($/MMBtu).

(2) The coal commodity price can be obtained from one of the following three sources:

  (a) Coal fuel index price, derived from regularly published data index source based on the price of Powder River Basin (PRB) 8,800 Btu/lb coal; or

  (b) The average weekly price of PRB 8,800 Btu/lb coal during the six months prior to the submission period, as published by the U.S. Energy Information Administration (EIA) under the "Coal Markets" heading; or

  (c) A weighted average price of the coal in the coal pile at the time of the submission as determined by the Filing Entity. Filing Entities must provide a detailed description and supporting documentation of how the weighted average price of the coal was determined under this approach, subject to approval by ERCOT.

(3) The transportation price can be calculated by the Filing Entity and based on the actual coal transportation average cost or an applicable index price, in $/MMBtu, to transport coal via rail/truck or barge to the plant. Transportation costs must be based on the average cost during the last six months prior to the submission period.

(4) The coal commodity and transportation prices in $/short ton must be converted to $/MMBtu as:

  (a) $/MMBtu = [$/short ton] * [1 short ton/2,000lb] * [1lb/8,800 Btu] * [1,000,000 Btu/MMBtu].

(5) The ACFA for the six month period of review can be calculated as follows:

(a) ACFA ($/MMBtu) = [∑ (weekly average actual price or coal fuel index price + weekly average transportation price – weekly average FIP)] / Number of weeks in the six month period; or

(b) ACFA ($/MMBtu) = [∑ (weekly average price published by the EIA + weekly average transportation price – weekly average FIP)] / Number of weeks in the six month period; or

(c) ACFA ($/MMBtu) = [∑ (monthly average actual price or coal fuel index price + monthly average transportation price – monthly average FIP)] / six months; or

(6) Notwithstanding the calculation of ACFA as described in paragraph (5) (a) – (c) above, the Filing Entity may propose another methodology for calculating ACFA and submit it to ERCOT in advance for approval by ERCOT.

(7) ACFA submissions will follow the timeline shown in the table in paragraph (5) of Section 3.4, Additional Rules for Submitting Fuel Costs.

~~ERCOT shall calculate the Fuel Adder for coal and lignite Resources quarterly as indicated in Table 1 below, utilizing the following methodology:~~

~~Fuel Adder for next period ($/MMBtu) = Max ($0.50, CF)~~

~~Where,~~

~~Coal Fuel Adder (CF) ($/MMBtu) = [∑ (weekly CFIP – average Fuel Index Price (FIP) for week)] / Number of weeks in period~~

~~Coal Fuel Index Price (CFIP) ($/MMBtu) = the price of Powder River Basin (PRB) 8,800 Btu/lb coal delivered to ERCOT or the Gulf Coast area, as derived from regularly published data selected by ERCOT. The CFIP for the current week shall be based on the most recent price data received by ERCOT from the publisher for PRB 8800 coal (i.e. prompt quarterly or monthly settled price) and the cost of rail transportation from the PRB.~~

- ~~ERCOT shall issue a Market Notice disclosing the name of the ERCOT-selected publication(s) or source(s) used to determine the CFIP. In the event that the ERCOT-selected index (or indices) becomes unavailable, or ERCOT determines that the index (or indices) has become unsuitable for the intended purpose, ERCOT may select a substitute index or indices. Otherwise, ERCOT may use a proxy price "T", in terms of $/MMBtu, as approved by the Technical Advisory Committee (TAC) until such time that a suitable index is obtained. ERCOT shall issue a Market Notice disclosing its intent to use a substitute index source, the name of the substitute index source, or a proxy price at least 60 days prior to the beginning of its use, or as soon as practicable.~~

- ~~Any index or indices utilized hereunder that are in units of [$/short ton] shall be converted to [$/MMBtu] as follows: [$/MMBtu] = [$/short ton] * [1 short ton/2,000lb]* [1 lb/8,800 Btu] * [1,000,000 Btu/MMBtu].~~

~~Table 1~~

~~Months of Review~~	~~Month of Calculation~~	~~Effective Period~~
~~January–March~~	~~April~~	~~May 1–July 31~~
~~April–June~~	~~July~~	~~August 1–October 31~~
~~July–September~~	~~October~~	~~November 1–January 31~~
~~October–December~~	~~January~~	~~February 1–April 30~~

ERCOT Impact Analysis Report

VCMRR Number	040	VCMRR Title	Methodology for Calculating Fuel Adders for Coal-Fired Resources
Impact Analysis Date		April 23, 2024	
Estimated Cost/Budgetary Impact		None.	
Estimated Time Requirements		No project required. This Verifiable Cost Manual Revision Request (VCMRR) can take effect following Public Utility Commission of Texas (PUCT) approval.	
ERCOT Staffing Impacts (across all areas)		Ongoing Requirements: No impacts to ERCOT staffing.	
ERCOT Computer System Impacts		No impacts to ERCOT computer systems.	
ERCOT Business Function Impacts		ERCOT will update its business processes to implement this VCMRR.	
Grid Operations & Practices Impacts		No impacts to ERCOT grid operations and practices.	

Evaluation of Interim Solutions or Alternatives for a More Efficient Implementation
None offered.

Comments
None.

Alignment Nodal Operating Guide Revision Request

NOGRR Number	269	NOGRR Title	Alignment Changes for October 1, 2024 Nodal Operating Guide – NPRR1217
Date Posted		August 22, 2024	
Status		Alignment Change	

Nodal Operating Guide Sections Requiring Revision	4.5.3.3, EEA Levels
Related Documents Requiring Revision/Related Revision Requests	Nodal Protocol Revision Request (NPRR) 1217, Remove Verbal Dispatch Instruction (VDI) Requirement for Deployment and Recall of Load Resources and Emergency Response Service (ERS) Resources
Revision Description	This Nodal Operating Guide Revision Request (NOGRR) aligns Energy Emergency Alert (EEA) language in Section 4.5.3.3 with Protocol Section 6.5.9.4.2, EEA Levels. On August 20, 2024, the ERCOT Board recommended approval of NPRR1217, which modified language in Protocol Section 6.5.9.4.2. Paragraph (6) of Section 1.3.1, Introduction, provides that ERCOT may make changes to the Nodal Operating Guide to maintain duplicate language between the Protocols and Nodal Operating Guide, and requires that Section 4.5.3.3 be modified only by an Alignment NOGRR.
Reason for Revision	☐ Strategic Plan Objective 1 – Be an industry leader for grid reliability and resilience ☐ Strategic Plan Objective 2 - Enhance the ERCOT region's economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers ☐ Strategic Plan Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission ☒ General system and/or process improvement(s) ☐ Regulatory requirements ☐ ERCOT Board/PUCT Directive *(please select ONLY ONE – if more than one apply, please select the ONE that is*

	most relevant)
ERCOT Opinion	ERCOT supports approval of NOGRR269.
ERCOT Market Impact Statement	ERCOT Staff has reviewed NOGRR269 and believes the market impact for NOGRR269 aligns the Nodal Operating Guide with current Protocols.

Sponsor	
Name	Erin Wasik-Gutierrez
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Company	ERCOT
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Market Segment	Not Applicable

Market Rules Staff Contact	
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Phone Number	413-886-2474

Proposed Guide Language Revision

4.5.3.3 EEA Levels

(1) ERCOT will declare an EEA Level 1 when PRC falls below 2,500 MW and is not projected to be recovered above 2,500 MW within 30 minutes without the use of the following actions that are prescribed for EEA Level 1:

(a) ERCOT shall take the following steps to maintain steady state system frequency near 60 Hz and maintain PRC above 2,000 MW:

(i) Request available Generation Resources, that can perform within the expected timeframe of the emergency, to come On-Line by initiating manual HRUC or through Dispatch Instructions;

(ii) Use available DC Tie import capacity that is not already being used;

(iii) Issue a Dispatch Instruction for Resources to remain On-Line which, before start of emergency, were scheduled to come Off-Line; and

(iv) Instruct QSEs to deploy undeployed ERS-10 and ERS-30.

[NOGRR221: Insert item (v) below upon system implementation of NPRR1010:]

(v) At ERCOT's discretion, manually deploy, through Inter-Control Center Communications Protocol (ICCP), available RRS and ERCOT Contingency Reserve Service (ECRS) capacity from Generation Resources having a Resource Status of ONSC and awarded RRS or ECRS.

(b) QSEs shall:

(i) Ensure COPs, telemetered status, and telemetered High Sustained Limits (HSLs) are updated and reflect all Resource delays and limitations; and

[NOGRR221: Replace paragraph (i) above with the following upon system implementation of NPRR1010:]

(i) Ensure COPs, telemetered status, and telemetered HSLs, Normal Ramp Rates, Emergency Ramp Rates, and Ancillary Service capabilities are updated and reflect all Resource delays and limitations; and

(ii) Ensure that each of its Energy Storage Resources (ESRs) suspends charging until the EEA is recalled, except under the following circumstances:

(A) The ESR has a current SCED Base Point Instruction, Load Frequency Control (LFC) Dispatch Instruction, or manual Dispatch Instruction to charge the ESR;

(B) The ESR is actively providing Primary Frequency Response; or

(C) The ESR is co-located behind a Point of Interconnection (POI) with onsite generation that is incapable of exporting additional power to the ERCOT System, in which case the ESR may continue to charge as long as maximum output to the ERCOT System is maintained.

[NOGRR229: Replace paragraph (ii) above upon system implementation of NPRR995:]

(ii) Ensure that each of its Energy Storage Resources (ESRs) and Settlement Only Energy Storage Systems (SOESSs) suspends charging until the

EEA is recalled, except under the following circumstances:

(A) The ESR has a current SCED Base Point Instruction, Load Frequency Control (LFC) Dispatch Instruction, or manual Dispatch Instruction to charge the ESR;

(B) The ESR or SOESS is actively providing Primary Frequency Response; or

(C) The ESR or SOESS is co-located behind a Point of Interconnection (POI) with onsite generation that is incapable of exporting additional power to the ERCOT System, in which case the ESR may continue to charge as long as maximum output to the ERCOT System is maintained.

(2) ERCOT may declare an EEA Level 2 when the clock-minute average system frequency falls below 59.91 Hz for 15 consecutive minutes. ERCOT will declare an EEA Level 2 when PRC falls below 2,000 MW and is not projected to be recovered above 2,000 MW within 30 minutes without the use of the following actions that are prescribed for EEA Level 2:

(a) In addition to the measures associated with EEA Level 1, ERCOT shall take the following steps to maintain steady state system frequency at a minimum of 59.91 Hz and maintain PRC above 1,500 MW:

(i) Instruct TSPs and DSPs or their agents to reduce Customer Load by using existing, in-service distribution voltage reduction measures that have not already been implemented. A TSP, DSP or their agent shall implement these instructions if distribution voltage reduction measures are available and already installed. If the TSP, DSP, or their agent determines in their sole discretion that the distribution voltage reduction would adversely affect reliability, the voltage reduction measure may be reduced, modified, or otherwise changed from maximum performance to a level of exercise that has no negative impact to reliability.

(ii) Instruct TSPs and DSPs to implement any available Load management plans to reduce Customer Load.

(iii) Instruct QSEs to deploy ECRS or RRS (controlled by high-set under-frequency relays) supplied from Load Resources. ERCOT may deploy ECRS or RRS simultaneously or separately, and in any order. ERCOT shall issue such Dispatch Instructions in accordance with the deployment methodologies described in paragraph (iv) below.

(iv) Load Resources providing ECRS that are not controlled by high-set under-frequency relays shall be deployed prior to Group 1 deployment. ERCOT shall deploy ECRS and RRS capacity supplied by Load Resources

(controlled by high-set under-frequency relays) in accordance with the following:

(A) Instruct QSEs to deploy RRS with a Group 1 designation and all of the ECRS that is supplied from Load Resources (controlled by high-set under-frequency relays) by instructing the QSE representing the specific Load Resources to interrupt Group 1 Load Resources providing ECRS and RRS. QSEs shall deploy Load Resources according to the group designation and will be given some discretion to deploy additional Load Resources from any of the groups not designated for deployment if Load Resource operational considerations require such. ERCOT shall issue notification of the deployment via XML message. The deployment time within the ERCOT XML deployment message~~ERCOT shall follow this XML notification with a QSE Hotline VDI, which~~ shall initiate the ten-minute deployment period;

(B) At the discretion of the ERCOT Operator, instruct QSEs to deploy RRS that is supplied from Load Resources (controlled by high-set under-frequency relays) by instructing the QSE representing the specific Load Resource to interrupt additional Load Resources providing RRS based on their group designation. ERCOT shall issue notification of the deployment via XML message. The deployment time within the ERCOT XML deployment message~~ERCOT shall follow this XML notification with a QSE Hotline VDI, which~~ shall initiate the 10-minute deployment period;

(C) The ERCOT Operator may deploy Load Resources providing only ECRS (not controlled by high-set under-frequency relays) and all groups of Load Resources providing RRS and ECRS at the same time. ERCOT shall issue notification of the deployment via XML message. The deployment time within the ERCOT XML deployment message~~ERCOT shall follow this XML notification with a QSE Hotline VDI, which~~ shall initiate the 10-minute deployment period; and

(D) ERCOT shall post a list of Load Resources on the Market Information System (MIS) Certified Area immediately following the Day-Ahead Reliability Unit Commitment (DRUC) for each QSE with a Load Resource obligation which may be deployed to interrupt under paragraph (A) and paragraph (B). ERCOT shall develop a process for determining which individual Load Resource to place in each group based on a random sampling of individual Load Resources. At ERCOT's discretion, ERCOT may deploy all Load Resources at any given time during EEA Level 2.

[NOGRR221: Replace paragraph (D) above with the following upon system implementation of NPRR1010:]

(D) ERCOT shall post a list of Load Resources on the MIS Certified Area immediately following the DRUC for each QSE with a Load Resource RRS or ECRS award, which may be deployed to interrupt under paragraph (A) and paragraph (B). ERCOT shall develop a process for determining which individual Load Resource to place in each group based on a random sampling of individual Load Resources. At ERCOT's discretion, ERCOT may deploy all Load Resources at any given time during EEA Level 2.

(v) Unless a media appeal is already in effect, ERCOT shall issue an appeal through the public news media for voluntary energy conservation; and

(vi) With the approval of the affected non-ERCOT Control Area, TSPs, DSPs, or their agents may implement transmission voltage level BLTs, which transfer Load from the ERCOT Control Area to non-ERCOT Control Areas in accordance with BLTs as defined in the Operating Guides.

(b) Confidentiality requirements regarding transmission operations and system capacity information will be lifted, as needed to restore reliability.

(3) ERCOT may declare an EEA Level 3 when the clock-minute average system frequency falls below 59.91 Hz for 20 consecutive minutes or when steady-state frequency falls below 59.8 Hz. ERCOT will declare an EEA Level 3 when PRC cannot be maintained above 1,500 MW or when the clock-minute average system frequency falls below 59.91 Hz for 25 consecutive minutes. Upon declaration of an EEA Level 3, ERCOT shall take any of the following measures as necessary to recover frequency or PRC to the minimum required levels:

(a) Instruct ESRs to suspend charging. For ESRs, ERCOT shall issue the suspension instruction via a SCED Base Point instruction, or, if otherwise necessary, via a manual Dispatch Instruction. An ESR shall suspend charging unless it is providing Primary Frequency Response, has received a charging instruction via SCED Base Point, or is carrying Regulation Down Service (Reg-Down) and has received a charging instruction from LFC. However, an ESR co-located behind a POI with onsite generation that is incapable of exporting additional power to the ERCOT System may continue to charge as long as maximum output to the ERCOT System is maintained.

[NOGRR229: Replace paragraph (a) above upon system implementation NPRR995:]

(a) Instruct ESRs to suspend charging. For ESRs, the suspension instruction shall be issued via a SCED Base Point, or, if otherwise necessary, via a manual

Dispatch Instruction. An ESR shall suspend charging unless it is providing Primary Frequency Response, has received a charging instruction via SCED Base Point, or is carrying Regulation Down Service (Reg-Down) and has received a charging instruction from LFC. An SOESS shall suspend charging unless it is providing Primary Frequency Response. However, an ESR or SOESS co-located behind a POI with onsite generation that is incapable of exporting additional power to the ERCOT System may continue to charge as long as maximum output to the ERCOT System is maintained.

(b) Direct all TOs to shed firm Load, in 100 MW blocks, distributed as documented in these Operating Guides in order to maintain a steady state system frequency at a minimum of 59.91 Hz and to recover 1,500 MW of PRC within 30 minutes.

(i) TOs and Transmission and/or Distribution Service Providers (TDSPs) may shed Load connected to under-frequency relays pursuant to an ERCOT Load shed directive issued during EEA Level 3 so long as each affected TO continues to comply with its Under-Frequency Load Shed (UFLS) obligation as described in Section 2.6.1, Automatic Firm Load Shedding, and its Load shed obligation as described in Section 4.5.3.4, Load Shed Obligation.

(c) Implement any appropriate measures associated with EEA Levels 1 and 2 that have not already been implemented.