



## Must-Run Alternative (MRA) Governing Document

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## Revision History

Date	Author	Version	Change reference
7/25/24	ERCOT	1.0	Initial Version
8/21/24	<u>ERCOT</u>	<u>1.1</u>	<u>Amended Version</u>

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<b>1</b>	<b>STANDARDS APPLICABLE TO ALL MRA RESOURCES</b>	<b>3</b>
1.1	Overview and Description	3
1.2	Communication Requirements	4
1.2.1	Communications Between QSEs and MRA Resources	4
1.3	Substitutions	5
1.3.1	General Substitution Provisions	5
1.3.2	Substitution Process	5
1.3.3	Description of Substituting MRA Resources	6
1.3.4	Compliance	6
1.4	Testing	6
1.5	Commitment and Dispatch	7
1.6	Remedies for Material Failure to Perform	7
1.7	Force Majeure	8
1.8	Settlement of All MRA Resources	8
1.9	MRA Contributed Capital Expenditures Payment for All MRA Resources	8
1.10	General Requirement for Compensating Energy Storage MRA Resources for Energy Consumed to Charge	9
1.11	Treatment of Generation and Energy Storage MRA Resources in Reliability Unit Commitment (RUC) Capacity Short Settlement	9
<b>2</b>	<b>STANDARDS APPLICABLE TO GENERATION RESOURCE MRAS AND ESR MRAS</b>	<b>10</b>
2.1	Payment Methodology for Generation Resource MRAs and ESR MRAs	10
2.1.1	Standby Payments for Supply-Side MRA Resources	10
2.1.2	Deployment Event Payments for Supply-Side MRA Resources	10
2.1.3	Variable Payments for Supply-Side MRA Resources	10
2.2	Performance Criteria for Generation Resource MRAs and ESR MRAs	11
<b>3</b>	<b>STANDARDS APPLICABLE TO OTHER GENERATION MRA RESOURCES</b>	<b>12</b>

3.1	Other Generation MRA Resources.....	12
<b>4</b>	<b>STANDARDS FOR DEMAND RESPONSE MRA RESOURCES.....</b>	<b>13</b>
4.1	Definitions.....	13
4.2	Payment Methodology for Demand Response MRA Resources.....	14
4.2.1	Standby Payments for Demand Response MRA Resources.....	14
4.2.2	Deployment Event and Variable Payments for Demand Response MRA Resources.....	14
4.3	Telemetry Requirements for DR MRA Resources.....	14
4.4	DR MRA Resource Identification.....	14
4.5	Offer Submission.....	18
4.5.1	Baselines for DR MRA Resources.....	19
4.5.1.1	Baselines.....	19
4.6	Participation by Sites in NOIE Territories.....	20
4.7	Participation by Registered Load Resources (LRs).....	21
<b>5</b>	<b>Additional Information for Other Generation MRA Resources and Demand Response MRA Resources.....</b>	<b>22</b>

Contents

**1 STANDARDS APPLICABLE TO ALL MRA RESOURCES .....6**

1.1 Overview and Description.....6

1.2 Communication Requirements.....8

    1.2.1 Communications Between QSEs and MRA Resources.....9

1.3 Substitutions.....9

    1.3.1 General Substitution Provisions .....9

    1.3.2 Substitution Process .....10

    1.3.3 Description of Substituting MRA Resources.....10

    1.3.4 Compliance.....11

1.4 Testing.....11

1.5 Commitment and Dispatch.....11

1.6 Remedies for Material Failure to Perform .....12

1.7 Force Majeure.....13

1.8 Settlement of All MRA Resources.....13

1.9 MRA Contributed Capital Expenditures Payment for All MRA Resources .....13

**2 PAYMENTS AND STANDARDS APPLICABLE TO GENERATION RESOURCE MRAS AND ENERGY STORAGE RESOURCE MRAS .....16**

2.1 Payment Methodology for Generation Resource MRAs and Energy Storage Resource MRAs .....16

    2.1.1 Standby Payments for Generation Resource MRAs or Energy Storage Resource MRAs .....16

    2.1.2 Deployment Event Payments for Generation Resource MRAs or Energy Storage Resource MRAs.....16

    2.1.3 Variable Payments for Generation Resource MRA or Energy Storage Resource MRA.....16

    2.1.4 Treatment of Generation Resource MRA or Energy Storage Resource MRA in Reliability Unit Commitment (RUC) Capacity Short Settlement.....17

    2.1.5 General Requirement for Compensating Energy Storage Resource MRA for Energy Consumed to Re-Charge.....17

2.2 Standards for Generation Resource MRAs or Energy Storage Resource MRAs.....17

**3 STANDARDS APPLICABLE TO OTHER GENERATION MRA RESOURCES .....19**

3.1 Other Generation MRA Resources.....19

3.2 Offer Submission for Other Generation MRAs.....20

**4 PAYMENTS AND STANDARDS APPLICABLE TO DEMAND RESPONSE MRA RESOURCES .....21**

4.1 Definitions.....21

4.2 Preliminary Review of Prospective Demand Response MRAs.....21

4.3 Payment Methodology for Demand Response MRA Resources .....22

    4.3.1 Standby Payments for Demand Response MRA Resources .....22

    4.3.2 Deployment Event and Variable Payments for Demand Response MRA Resources.....22

4.4 Demand Response MRA Resource Identification .....23

4.5 Offer Submission for DR MRAs.....26

    4.5.1 Baselines for Demand Response MRA Resources.....27

4.6 Participation by Sites in NOIE Territories .....29

4.7 Participation by Registered Load Resources (LRs).....29

**5 ADDITIONAL INFORMATION FOR OTHER GENERATION MRA RESOURCES AND DEMAND RESPONSE MRA RESOURCES .....32**

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This Governing Document establishes the standards governing the participation of any Must-Run Alternative (MRA) source committed under an agreement between ERCOT and a Qualified Scheduling Entity (QSE) to provide MRA Service as an alternative to ERCOT entering into one or more Reliability Must-Run (RMR) Agreements with CPS Energy regarding the continued operation of the following three Generation Resources: BRAUNIG\_VHB 1; BRAUNIG\_VHB2; and BRAUNIG\_VHB3 beyond the proposed retirement date of March 31, 2025. For the purposes of this document, such sources providing MRA Service are referred to hereinafter as “MRA Resources.”

The Request for Proposal for Must-Run Alternative to Braunig Reliability Must-Run Agreements (the MRA RFP) addresses, *inter alia*, the legal framework for ERCOT’s administration of the MRA Service solicited in the MRA RFP. Unless otherwise specifically indicated, capitalized terms used in this document should be understood to have the meaning assigned in ERCOT Protocols Section 2.1, Definitions.

## 1 STANDARDS APPLICABLE TO ALL MRA RESOURCES

### 1.1 Overview and Description

#### (1) Eligible MRA resources may include:

- (a) A proposed Generation Resource, including an Energy Storage Resource, that was not included in the reliability need evaluation pursuant to paragraph (3)(a) of Section 3.14.1.2.
  - (i) Proposed Generation Resources must adhere to all interconnection requirements, including the requirements of Planning Guide Section 5, Generation Resource Interconnection or Change Request.
  - (ii) If the proposed Generation Resource is an Intermittent Renewable Resource, the QSE shall provide capacity values based on the Resource’s projected peak average capacity contribution during the MRA Contracted Hours.
- (b) A proposed or existing generator registered, or proposed to be registered, with ERCOT as a Settlement Only Generator (SOG) or as Distributed Generation (DG). If the generator is an intermittent renewable generator, the QSE, when responding to an RFP for MRA Service, shall provide capacity values based on the MRA’s projected peak average capacity contribution during the hours identified in the MRA Contracted Hours.
- (c) Proposed or existing Demand response assets, which may include Load Resources and Emergency Response Service (ERS) Loads.

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(1)(2) An MRA Resource for which the MRA, or every MRA Site, is metered with either an Advance Meter or an ERCOT-Polled Settlement (EPS) meter must be complete and available for qualification testing no later than 10 days prior to the first day of the contracted MRA Service. All other MRAs must be complete and available for qualification testing no later than 45 days prior to the first day of the contracted MRA Service.

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(2)(3) QSEs may aggregate multiple Sites to constitute an MRA Resource provided that each Site in such an aggregation meets all technical requirements described herein.

(3)(4) All Sites in an MRA Resource must have the same maximum Demand response Ramp Period or generator start-up time capabilities.

(4)(5) All MRA Resources must be available for deployment during the awarded periods.

(5)(6) Prior to making MRA awards, ERCOT will evaluate each MRA Resource based on its expected impact to reducing overloads on the 345-kV transmission lines that are subject to the South Texas Export Interconnection Reliability Operating Limits (IROLs). In the case of an aggregated MRA Resource, the Site or Sites within the MRA Resource with the least benefit in reducing the constraint overload will serve as the representation of the aggregation as a whole. Accordingly, QSEs are encouraged to aggregate Sites at electrical buses or transmission substations with similar shift factors.

~~(6) MRA Resource telemetry shall be provided from the QSE to ERCOT at the MRA Resource level. Meeting this requirement does not necessarily require physical telemetry at the Site level, but will require the QSE to have the capability to manage telemetered value changes in real time to accurately reflect the status of an aggregated MRA Resource. ERCOT may periodically perform a validation of this telemetry using 15 minute interval meter data.~~

(7) ERCOT shall analyze 15-minute interval meter data; adjusted for the deemed actual Distribution Loss Factors (DLFs), for each distribution-connected MRA Resource for purposes of offer analysis, availability and performance measurement, and as described herein and in gray-boxed Protocols Section 3.14.4.6.3, MRA Metering and Metering Data. The interval meter data for MRA Sites located in competitive choice areas will be adjusted by the DLFs used for ERCOT settlement.

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(8) The interval meter data for MRA Sites associated with Unique Meter IDs in NOIE areas will be adjusted based on a NOIE DSP DLF study submitted to ERCOT pursuant to Protocols, Section 13.3, Distribution Losses. If no such study has been submitted, the interval meter data will not be adjusted for distribution losses.

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- (9) An MRA may be connected at either transmission or distribution voltage.
- (10) Each MRA must provide at least five (5) MW of capacity.
- (11) All MRA Sites in an MRA must be of the same type (i.e., all Generation Resource MRA, Energy Storage MRA, Other Generation MRA, or Demand Response MRA).
- (12) A QSE representing an MRA or MRA Site may not submit DAM Offers or carry an Ancillary Service Resource Responsibility or an Emergency Response Service responsibility on behalf of any MRA or MRA Site during the MRA Contracted Hours. Demand Response MRAs may not participate in TDSP standard offer programs during any MRA Contracted Hours.
- (13) A Combined Cycle Train serving as an MRA must be configured as a single Combined Cycle Generation Resource.
- (14) QSEs representing MRAs shall submit offers using an MRA offer sheet as provided by ERCOT.
- (15) Except for a Forced Outage, any Outage of an MRA during the contracted MRA Service period must be approved by ERCOT.
- (16) For any MRA that is registered with ERCOT as a Resource, the QSE representing the MRA must be the same as the QSE representing the Resource.
- (17) Generation Resource MRAs and Energy Storage Resource MRAs must submit Energy Offer Curves (EOC) at the System Wide Offer Cap (SWOC) during Contracted Hours.

**1.2 Communication Requirements**

- ~~(1) Each QSE representing an MRA Resource must provide telemetry to ERCOT via Inter-Control Center Protocol (ICCP) consistent with the ERCOT Nodal ICCP Communication Handbook.~~
- ~~(2) Telemetry values required for each MRA Resource type are detailed in the subsections below:~~
  - ~~(1) Each QSE must submit Resource Status information for each MRA Resource the QSE represents, in a manner consistent with the requirements of Protocols Section 3.9.1, Current Operating Plan (COP) Criteria, on a rolling hourly basis covering each of the upcoming 168 hours.~~
- (2) A QSE representing an MRA shall submit to ERCOT and continuously update an Availability Plan, as defined in Protocols Section 2, Definitions and Acronyms, for each MRA Contracted Hour for the current Operating Day and the next six Operating Days.

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### 1.2.1 Communications Between QSEs and MRA Resources

- (1) A QSE representing MRA Resources must be capable of communicating with its MRA Resources in such a way as to allow the MRA Resources to meet their performance criteria in an MRA deployment event.
- (2) A QSE representing MRA Resources must be capable of receiving and responding to an ERCOT Verbal Dispatch Instructions (VDI) and an Extensible Markup Language (XML) Dispatch Instruction. Each QSE representing a Generation Resource (GR) [MRA](#) or Energy Storage Resource (ESR) MRA must be capable of receiving an ERCOT Reliability Unit Commitment (RUC) VDI and Security Constrained Economic Dispatch (SCED) Base Points. The QSE may meet this requirement with either of the following two options:
  - (a) Becoming a WAN Participant by establishing a WAN connection and executing a WAN agreement with ERCOT. For this option, installation and enablement of the WAN connection at the QSE's Site is the full responsibility of the QSE; or
  - (b) Using an Agency Agreement with a QSE that is a WAN Participant to provide the required communication.
- (3) When ERCOT issues Dispatch instructions regarding the deployment of MRA Resources, QSEs shall instruct their MRA Resources to deploy their contracted capacity. QSEs are fully responsible for communicating Dispatch Instructions to the contracted MRA Resources they represent.

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## 1.3 Substitutions

### 1.3.1 General Substitution Provisions

- (1) Subject to approval by ERCOT, a QSE may substitute a new MRA Resource for an awarded MRA Resource in the event that an awarded MRA Resource becomes unable to provide the service. Because ERCOT procured the MRA Resource based in part on its location on the transmission system and its resulting impact to the 345-kV transmission lines that are subject to the South Texas Export IROLs, the impact of the substitute MRA Resource must be greater than or equal to the impact of the originally awarded MRA Resource; otherwise, the substitution will be disallowed by ERCOT. Any substituted resource is subject to the same obligations as the originally awarded MRA Resource.
- (2) ERCOT, at its discretion, may disallow any MRA Resource substitution if it determines that the substitution may cause operational or reliability concerns or is inconsistent with this section.

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(3) The MW capacity and prices specified on the various MRA Offer Submission Forms may not be changed for a substitution.

### 1.3.2 Substitution Process

(1) The QSE shall notify ERCOT via email to a dedicated email inbox when an MRA Resource substitution is to occur, subject to ERCOT's approval. The email notification must include the following information:

- (a) Identification of the awarded MRA Resource for which the substitution is being submitted;
- (b) Start date and time of the period of substitution;
- (c) Estimated date and time of the original MRA Resource's return to service; and
- (d) For a Demand Response MRA Resource, a completed DR MRA Submission Form describing the substituting MRA Resource.

(2) The start date for a period of substitution may not begin prior to the calendar day following ERCOT's receipt of the notification.

(3) Submission of the form designating a substitution constitutes a binding commitment to use the substituted MRA Resource to provide MRA Service under the terms of the MRA Agreement.

(4) The minimum duration for a substitution is one calendar day.

### 1.3.3 Description of Substituting MRA Resources

(1) A substituting MRA Resource may include Sites that are part of the original MRA Resource; but may not include Sites currently suspended from participation in Ancillary Services or [ERSEmergency Response Service](#).

(2) An individual MRA Resource may substitute for an aggregated MRA Resource, and vice versa.

(3) The substituting MRA Resource Loads must pass the same ERCOT validations as those required for initial offers and must provide at least the same MRA capacity as the originally awarded MRA Resource. Substituting Demand response MRA Resources must qualify for at least one of ERCOT's six default baseline types.

(4) The substituting MRA Resource shall not provide MRA services with any capacity that is separately obligated, and receiving a separate reservation payment for such obligation, during the committed hours.

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(5) Substituting MRA Resources may be subject to ERCOT unannounced testing during their period of substitution.

### 1.3.4 Compliance

A substituting MRA Resource is subject to MRA deployment throughout the substitution period. In a deployment event, the MRA Resource that is obligated at the time of the event is subject to the deployment requirements.

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### 1.4 Testing

(1) Testing of an MRA will be conducted consistent with the gray-boxed provisions of Protocols Section 3.14.4.7. However, ERCOT retains discretion on whether to conduct a test of a Demand Response MRA or an Other Generation MRA prior to the initial MRA Contracted Month.

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(2) For the purposes of Section 6.6.6.7, MRA Standby Payment, ERCOT may adjust the testing capacity results for a Generation Resource MRA to reflect conditions beyond the control of the Generation Resource MRA.

### 1.5 Commitment and Dispatch

(1) MRA Resources must be capable of being Dispatched by SCED or by an ERCOT Verbal Dispatch Instruction (VDI) and/or an Extensible Markup Language (XML) Dispatch Instruction.

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(2) ERCOT may commit and/or Dispatch an MRA Resource at any time during the term of the MRA Agreement for the purpose of utilizing the MRA Resource's awarded capacity at any time during the MRA Contracted Hours specified in the applicable, executed MRA Agreement. The MRA RFP specifies the hours for each season for which ERCOT is seeking offers to provide the MRA Service. ERCOT may, at its discretion deploy all MRA Resources simultaneously or separately. ERCOT's decision to deploy specific MRA Resources as a group may be influenced by the Ramp Period of the group.

**a)(a)** \_\_\_\_\_ Generation Resources and Energy Storage Resources that are MRA Resources shall be committed through the RUC process or via VDI and/or XML instruction and subsequently dispatched by SCED.

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**b)(b)** \_\_\_\_\_ ERCOT shall dispatch other MRA Resources during deployment events or unannounced tests by means of a VDI to the all-QSE Hotline and/or via XML Dispatch Instruction. The VDI shall represent the official start of the MRA Ramp Period.

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(3) By the end of the generation start-up period or Ramp Period, an MRA Resource shall deploy in accordance with its appropriate performance evaluation methodology as described in this document.

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(4) The official start time of the Demand response Ramp Period or generator start-up time will be determined by ERCOT staff upon review of the time-stamped recording of the VDI. The start time begins when the ERCOT operator confirms the QSE's repeat back of the instruction.

### **1.6 Remedies for Material Failure to Perform**

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-Failure by a QSE to meet the performance or availability requirements for the MRA service shall result in a reduction in payment(s) of all or part of the QSE's payments, in a method substantially similar to that described in gray-boxed Protocols Sections 6.6.6.7, 6.6.6.9, and 6.6.6.10. A Misconduct Event, as described in gray-boxed Protocols Section 3.14.4.8, may result in a charge to the MRA's QSE's, in a method substantially similar to that described in gray-boxed Protocols Section 6.6.6.11, MRA Charge for Unexcused Misconduct. An Automatic Default or Other Default Event may result in termination of the applicable MRA Agreement, as specified in the MRA Agreement, and enforcement action by the Public Utility Commission of Texas which may include administrative penalties, among other remedies that may be provided in the MRA Agreement, the MRA Governing Document, and this RFP.

**1.7 Force Majeure**

Any failure to comply with the requirements of this Governing Document shall be excused if that failure is attributable to a Force Majeure Event, as that term is defined in the Protocols.

**1.8 Settlement of All MRA Resources**

(1) Unless specified herein, Settlements of all MRA Resource's shall substantially follow the rules described with the gray-boxed Protocols Sections 6.6.6.7, MRA Standby Payment, 6.6.6.9, MRA Payment for Deployment Event, 6.6.6.10, MRA Variable Payment for Deployment, 6.6.6.12, MRA Service Charge, and Section 6.6.6.8, MRA Contributed Capital Expenditures Payment.

(2) The total MRA payments for the hour will be allocated monthly to QSEs representing Loads, based on the hourly load ratio share (HLRS) for each Hour of Obligation of the Contract Month.

(3) The payment and allocation will be done using a Miscellaneous Invoice after the final settlement has occurred for the last Operating Day of each calendar month in the Contract Period.

(4) ERCOT will utilize existing systems as much as possible to perform Settlements.

**1.9 MRA Contributed Capital Expenditures Payment for All MRA Resources**

(1) MRA Resources may receive a contributed capital expenditure payment as described in gray-boxed Paragraph (2) of Protocols Section 6.6.6.8, MRA Contributed Capital Expenditures Payment.

(2) Contributed capital expenditures are subject to claw back as described in Protocols Section 3.14.1.16, Reconciliation of Actual Eligible Costs.

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~~4.10 General Requirement for Compensating Energy Storage MRA Resources for Energy Consumed to Charge~~

~~Energy Storage Resources will be compensated for energy consumed to recharge after the hours of injection to the ERCOT system during an event deployment or an ERCOT required Capacity Test based on the cost of the energy as metered by the meter recording Wholesale Storage Load. The QSE will not be compensated for energy costs incurred during a re-test. An ESR shall only consume energy in hours that are not Hours of Obligation, and it must be charged to a level sufficient to provide the contracted amount of MRA Service prior to the next start of a block of Hours of Obligation. Additionally, the QSE shall use its best efforts to minimize the cost to re-charge and submit bid to buy curves taking into consideration estimates of future prices.~~

~~4.11 Treatment of Generation and Energy Storage MRA Resources in Reliability Unit Commitment (RUC) Capacity Short Settlement~~

~~Contracted Generation and ESR MRA Resources that have received a RUC Instruction will not have their capacity included when determining RUC Capacity Short Charges for the QSE.~~

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**2 PAYMENTS AND STANDARDS APPLICABLE TO GENERATION RESOURCE MRAS AND ESREENERGY STORAGE RESOURCE MRAS**

MRA Resources may include Generation ResourcesResource MRAs and (including Energy Storage Resources MRA;Resource MRAs), as defined in gray-boxed provisions in Protocols Section 2, Definitions and Acronyms.

**2.1 Payment Methodology for Generation Resource MRAs and ESREnergy Storage Resource MRAs**

**2.1.1 Standby Payments for Supply-Side MRA Resources**

**2.1.1.1 A supply-side MRA Generation Resource MRAs or Energy Storage Resource MRAs**

- (1) A Generation Resource MRA or an Energy Storage Resource MRA will be compensated for its awarded capacity based on the contracted Standby Price, adjusted by availability and capacity metrics, as described in gray-boxed Protocols Section 6.6.6.7, MRA Standby Payment.

**2.1.2 Deployment Event Payments for Supply-Side MRA Resources Generation Resource MRAs or Energy Storage Resource MRAs**

- (1) Generation Resource MRAs shall be compensated for a deployment event as described in gray-boxed Paragraph (1) of Protocols Section 6.6.6.9, MRA Payment for Deployment Event, only if the MRA followed ERCOT's commitment instruction.
- (2) Energy Storage MRA ResourcesResource MRAs shall be compensated for a deployment event based on the contracted Event Deployment Price, only if the MRA followed ERCOT's commitment instruction.

**2.1.3 Variable Payments for Supply-Side MRA Resources Generation Resource MRA or Energy Storage Resource MRA**

- (1) The Variable Payment for Deployment for Generation Resource MRAs shall be compensated as described in gray-boxed Paragraph (1) of Protocols Section 6.6.6.10, MRA Variable Payment for Deployment.
- (2) The Variable Payment for Deployment for ESREnergy Storage Resource MRAs shall be compensated similarly to a Generation Resource MRA, as described in gray-boxed Paragraph (1) of Protocols Section 6.6.6.10, MRA Variable Payment for Deployment, except that the Must-Run Alternative Generation Resource Calculated Variable Payment per QSE per Resource (MRAGRCVP) shall be calculated as the maximum of the contracted variable price or -the average cost(\$/MWh) to recharge, multiplied by the minimum of RTMG or contracted capacity. Charging costs will be calculated by ERCOT for energy

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consumed to recharge after the hours of injection to the ERCOT system during an event deployment and as described in Section 1.10, General Requirement for Compensating Energy Storage MRA Resources for Energy Consumed to Charge, of this document.

- (3) Notwithstanding the calculation of Variable Payments described in sections 1-3 above and in Protocols Section 6.6.6.10, MRA Variable Payment for Deployment, variable payments for MRA Resources that received a RUC Instruction will consider RUC-Make Whole Payments or RUC Claw back Charges in the calculation of MRA Real-Time Revenues.
- (4) MRA Resources that are dispatched by SCED shall be subject to Base Point Deviation Charges, as described in the ERCOT Protocols.
- (5) MRA Resources that are not dispatched by SCED shall be evaluated for event performance as described in gray-boxed Protocols Section 3.14.4.6.5, MRA Event Performance Measurement and Verification.

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**2.1.4 Treatment of Generation Resource MRA or Energy Storage Resource MRA in Reliability Unit Commitment (RUC) Capacity Short Settlement**

- (1) Contracted Generation Resource MRA or Energy Storage Resource MRA that have received a RUC Instruction will not have their capacity included when determining RUC Capacity Short Charges for the QSE.

**2.1.5 General Requirement for Compensating Energy Storage Resource MRA for Energy Consumed to Re-Charge**

- (1) Energy Storage Resource MRA will be compensated for energy consumed to re-charge the MRA capability after the hours of injection to the ERCOT system during an event deployment or an ERCOT-required Capacity Test based on the cost of the energy as metered by the meter recording Wholesale Storage Load. The QSE will not be compensated for energy costs incurred during a re-test. ~~Performance Criteria~~ An Energy Storage Resource shall only consume energy in hours that are not Contracted Hours, and it must be re-charged to a level sufficient to provide the contracted amount of MRA Service prior to the next start of a block of Contracted Hours. Additionally, the QSE shall use its best efforts to minimize the cost to re-charge and submit bid-to-buy curves taking into consideration estimates of future prices. The cost to re-charge shall be determined by starting with the least expensive consumed energy.

**2.2 Standards for Generation Resource MRAs and ESP or Energy Storage Resource MRAs**

- (1) A Generation Resource MRA or Energy Storage Resource MRA shall at all times communicate accurate Resource status to ERCOT via telemetry, consistent with the requirements for Generation Resources or

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Energy Storage Resources providing Ancillary Services or available to SCED and as described in the ERCOT Protocols.

- (2) ~~GR and ESR~~ [Generation Resource MRAs or Energy Storage Resource MRAs](#) that are dispatched by SCED shall follow SCED Base Point instructions as described in the ERCOT Protocols.
- (3) ~~A GR or ESR~~ [Generation Resource MRA or Energy Storage Resource MRA](#) that is On-Line will be subject to dispatch by SCED during all hours, including hours of MRA obligation.
- (4) Data values submitted via COP ~~or telemetry~~ are subject to validation using actual 15-minute metered generation.
- ~~(5)~~ [\(5\) Telemetry values are subject to validation using actual 15-minute metered generation.](#)
- [\(6\) A QSE representing a proposed Generation Resource MRA shall submit offers using the Generation Resource MRA Offer Submission Forms.](#)
- [\(7\) A QSE representing a proposed Energy Storage Resource MRA shall submit an offer using the Energy Storage Resource MRA Offer Submission Forms.](#)

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### 3 STANDARDS APPLICABLE TO OTHER GENERATION MRA RESOURCES

#### 3.1 Other Generation MRA Resources

(1) Other Generation MRAs are ineligible to provide Emergency Response Service (ERS) during contracted hours ~~subject to dispatch~~ in accordance with this Governing Document.

~~(2) An Other Generation MRA shall at all times communicate accurate Resource status to ERCOT via telemetry and shall provide at least the following values:~~

- ~~(a) Unit status (e.g., ON, OUT, etc.)~~
- ~~(b) High Sustained Limit (HSL);~~
- ~~(c) Low Sustained Limit (LSL);~~
- ~~(d) Current output level in MW;~~
- ~~(e) Gross Reactive Power in MVAr;~~
- ~~(f) Net Reactive Power in MVAr.~~

~~(2) -ERCOT reserves the right to reject an offer of a proposed Other Generation MRA that is unregistered generation if, in ERCOT's sole judgment, the unregistered generation could pose a reliability risk. ERCOT's consideration of such a reliability risk includes, but is not limited to, whether the proposed Other Generation MRA lacks voltage or frequency ride-through capability similar to that required of a similar Generation Resource and is large enough to pose a frequency risk.~~

~~(3) The ramp period for an Other Generation MRA is the period of time beginning with ERCOT's issuance of a VDI and/or XML instruction requesting MRA deployment and ending at the time the response is required to be delivered. The Ramp Period for an Other Generation MRA Resource shall be 30 minutes.~~

~~(3)(4) \_\_\_\_\_~~ Other Generation MRA Resources shall be compensated for a deployment event as described in gray-boxed Paragraph (2) of Protocols Section 6.6.6.9, MRA Payment for Deployment Event, only if the MRA followed ERCOT's commitment instruction.

~~(4)(5) \_\_\_\_\_~~ The Variable Payment for Deployment for Other Generation MRA Resources shall be compensated as described in gray-boxed Paragraph (2) of Protocols Section 6.6.6.10, MRA Variable Payment for Deployment.

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**3.2 Offer Submission for Other Generation MRAs**

(1) A QSE representing a proposed Other Generation MRA Resource shall submit an offer using the Other Generation MRA Offer Submission Forms.

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#### 4 PAYMENTS AND STANDARDS FOR APPLICABLE TO DEMAND RESPONSE MRA RESOURCES

This section of this document describes the requirements for a Demand Response Must-Run Alternative (DR MRA) Resource as the alternative to the proposed CPS Energy Braunig Resources Reliability Must-Run Agreement. All references to MRA Resource in this section of this document are applicable to Demand Response Assets.

##### 4.1 *Definitions*

The following terms are defined as follows only for the purposes of Section 4 of this Governing Document:

**Demand Response MRA (DR MRA) Resource** – An MRA Resource that intends to meet its MRA performance requirements by reducing Energy consumption in response to an MRA deployment instruction.

**DR Demand Response MRA Resource Offer Capacity** – The contracted Load Reduction capacity of a DR MRA Resource.

**Interval Metering** – Meters measuring energy usage in 15-minute intervals and meeting the requirements applicable to the ERCOT system, including Interval Data Recorders (IDRs) and Advanced Meters, as defined in the Protocols.

**Ramp Period** – Period of time beginning with ERCOT’s issuance of a VDI and/or XML instruction requesting MRA deployment and ending at the time the Demand ~~response~~Response is required to be delivered. ~~The Ramp Periods~~Period for ~~DR Demand Response~~ MRA Resources ~~may shall~~ be ~~40 minutes, 30 minutes, or 60~~ minutes in duration.

**Site** – Either an individual DR MRA Resource or a member of an aggregated DR Demand Response MRA Resource.

**Unique Meter ID** – An Identifier assigned by the QSE to a Site and to the interval data used for the Site for DR Demand Response MRA performance measurement & verification when the Site is within the service territory of a Non-Opt-In Entity (NOIE) or for a sub-metered Load inside a Private Use Network.

##### 4.2 Preliminary Review of Prospective Demand Response MRAs

(1) In order to assist QSEs prior to their submission of MRA offers, ERCOT may provide QSEs, upon request, with an analysis of their prospective Demand Response MRA’s consumption patterns.

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(2) ERCOT will provide a QSE with the analysis described under this Section only when the QSE makes its request in conformance with submission requirements and deadline set forth in the relevant MRA RFP.

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(a) In response to a proper and timely request by a QSE, ERCOT will provide the following information for each prospective Demand Response MRA:

(b) Substation identification for each MRA or MRA Site;

(c) Demand Response MRA baseline options, if the resource qualifies for a default baseline; and

(d) Historical reference Load levels; and

(e) Any known errors or exceptions, such as whether the MRA or any MRA Sites are currently suspended from participation in another service (e.g., Emergency Response Service (ERS)), whether any listed MRA or MRA Sites have erroneous Electric Service Identifiers (ESI IDs), or whether any prospective MRA or MRA Site lacks sufficient historical meter data.

(3) A submission by a QSE of a prospective Demand Response MRA does not bind the QSE to submit an offer for MRA Service.

**4.2.4.3 Payment Methodology for Demand Response MRA Resources**

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**4.2.4.3.1 Standby Payments for Demand Response MRA Resources**

(1) DR Demand Response MRA Resources will be compensated for their awarded capacity based on the contracted Standby Price), adjusted by availability and event and test performance metrics.

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(2) A DR Demand Response MRA Resource's Standby payment is subject to adjustment based on its availability and event or test performance.

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(a) ERCOT will calculate a Monthly Availability Factor for a DR Demand Response MRA Resource as described below.

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(b) ERCOT will calculate an Event Performance Factor for a DR Demand Response MRA Resource as described below.

**4.2.4.3.2 Deployment Event and Variable Payments for Demand Response MRA Resources**

(1) Demand Resource MRA Resources shall be compensated for a deployment event as described in gray-boxed Paragraph (2) of Protocols Section 6.6.6.9, MRA Payment for Deployment Event, only if ERCOT issues an MRA commitment instruction.

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(2) The Variable Payment for Demand Response MRA Resources shall be compensated as described in gray-boxed Paragraph (3) of Protocols Section 6.6.6.10, MRA Variable Payment for Deployment.

### 4.3 Telemetry Requirements for DR MRA Resources

(1) A DR MRA Resource's QSE shall at all times communicate accurate MRA Resource status to ERCOT via telemetry and shall provide at least the following values:

- (a) Net Power Consumption (NPC); and
- (b) Low Power Consumption (LPC).

(2) Telemetry values are subject to validation using actual 15-minute metered generation.

### 4.4 DR Demand Response MRA Resource Identification

(1) The DR Demand Response MRA Resource identification submission is an optional first step in the DR Demand Response MRA Resource offer submittal process. The purpose of the DR Demand Response MRA Resource identification process is to assist QSEs in preparing their offers by identifying available default baseline types, as described below, and to provide QSEs with an analysis of their prospective DR Demand Response MRA Resource's consumption patterns. QSEs may submit data relating to any prospective DR Demand Response MRA Resources to ERCOT using the Demand Response MRA Offer Submission Form Forms. Resource identification requests may be submitted to ERCOT any time up to seven calendar days prior to the Offer submission due date, as defined in Section 1.6 of the MRA RFP.

(2) QSEs submitting a DR Demand Response MRA Resource identification submission may identify prospective MRA Sites that will make up a DR Demand Response MRA Resource.

- (a) A DR Demand Response MRA Resource may consist of a single Site or multiple Sites.
- (b) An accurate Site name, street address, and ZIP Code is required for each submitted Site.
- (c) For Sites in a NOIE territory, the substation identification must be provided.

(3) The completed MRA Submission Form must include one or more of the following meter identifiers for each submitted Site:

- (a) -An ESI ID number for any Site where an ESI ID is present, including:
  - (i) All Sites situated in competitive choice areas of the ERCOT Region;
  - (ii) A NOIE Settlement metering point if the meter at that point is dedicated to the Site that will be in the DR Demand Response MRA Resource; or
  - (iii) A non-Settlement ESI ID within a NOIE footprint.

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- (b) A Unique Meter ID for Sites within a NOIE service territory that are not metered by a dedicated Settlement metering point ESI ID or a non-Settlement ESI ID;
- (c) A sub-metered Load within a Private Use Network;
- (d) Unique Meter IDs must be distinct and must remain consistent throughout the term of the MRA Agreement. Unique Meter IDs for Sites in NOIE service territories should be formatted according to the instructions in the Participation by Sites in NOIE Territories subsection below.

(4) In order to evaluate the applicability of a default baseline, ERCOT generally must have access to Site-specific historic interval meter data pulled within the last 45 days.

(a) If such data is not available in the ERCOT systems from an active interval-metered ESI ID, the QSE may submit the data to ERCOT consistent with the specifications detailed in the Metering & Meter Data section of this document. This requirement applies to any Site meeting any of the following descriptions:

- (i) The Site is in a competitive choice area of the ERCOT Region that does not have sufficient historical interval meter data.
- (ii) The Site is situated in a NOIE territory.

(5) For a Site with Distributed Renewable Generation (DRG) or for a Site which is a sub-metered load within a Private Use Network, the QSE may elect to have the Site evaluated solely with its premise-level load as metered by the TDSP or based on the site native load that is served by a combination of the ERCOT grid and the on-site generation. If the QSE elects to have the Site evaluated based on its native load, the native load will be calculated by adding the QSE-submitted generator output to the Site's import load as measured on the TDSP import meter and subtracting the Site's export to the grid as measured on the TDSP export meter. The following requirements also apply:

- (a) The Site must have signed an interconnection agreement with its TDSP.
- (b) For a DRG site located in a competitive area of ERCOT, the ESI ID for the Site must have a profile segment assignment in the ERCOT system that indicates the presence of distributed renewable generation as well as interval metering for both import from and export to the ERCOT grid.
- (c) If the Site is located in a NOIE area of ERCOT, the QSE must arrange with the NOIE TDSP to provide meter data for the Site's import from and export to the ERCOT grid and ~~the~~ consistent with specifications in the section Meter Data for [DR Demand Response](#) MRA Resources in NOIE Territories below.

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(d) QSE must submit 15-minute interval data for the on-site generator output consistent with the specifications in the section Meter Data from sources other than a registered TDSP below.

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(6) ERCOT may request additional meter data (i.e., more than twelve months of data) at its own discretion for prospective Loads.

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(7) QSEs should consider the following:

(a) A more accurate default baseline model can usually be created for an aggregation than for an individual Site; and

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(b) Similarly, aggregations with a large number of Sites are typically more likely to be accurately modeled than small aggregations.

(8) ERCOT will notify the submitting QSE if insufficient historical meter data is available for any Sites in a submitted [DR Demand Response](#) MRA Resource.

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(9) QSEs should provide ERCOT with a list of hours from the previous twelve months that Sites were unavailable, or for which the meter data may not provide an accurate indication of its true Load shape, due to factors such as scheduled maintenance or Force Majeure events. ERCOT will exclude these hours in its baseline analysis for the Sites in the [DR Demand Response](#) MRA Resource. For an [LR Load Resource](#), this list should include hours that it was deployed via ERCOT Dispatch instruction or under frequency relay trip.

(10) If a Site has had a material change in its energy usage patterns within the preceding twelve months, QSEs should provide a detailed description of such change.

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(11) By submitting an MRA Submission form for purposes of MRA Resource identification, the QSE affirms that it has obtained full authorization from all Sites within the [DR Demand Response](#) MRA Resource to obtain their historical usage analysis from ERCOT, and that the [DR Demand Response](#) MRA Resource holds ERCOT harmless for providing such analysis to the QSE.

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(12) Submission of MRA Site data during this optional first-step Resource identification process and prior to ERCOT's procurement of [DR Demand Response](#) MRA Resources does not bind the QSE or the [DR Demand Response](#) MRA Resource to provide MRA services or to submit an offer.

(13) ERCOT staff will analyze data submitted in the [DR Demand Response](#) MRA Resource identification submission process and will provide the following information to QSEs for each submitted [DR Demand Response](#) MRA Resource:

(a) Substation identification for each Site.

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(b) [DR Demand Response](#) MRA Resource Baseline options which may consist of more than one option, or an indication that the [DR Demand Response](#) MRA Resource as constituted does not qualify for a default baseline. Note: if any errors on the submission form are identified, baseline options will not be provided.

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(i) Statistical results based on historical data for the [DR Demand Response](#) MRA summarizing the historical accuracy level of the baseline load estimates.

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(ii) QSEs should consult the "Default Baseline Methodology" document posted to the [ERS Web Page](#) for details in interpreting historical accuracy levels.

(c) Historical reference Load levels, including the minimum Load, 1st percentile, 5th percentile levels and average.

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(d) A report of any errors and exceptions, including, but not limited to the following:

(i) Sites currently suspended from participation in [ER Emergency Response Service](#) or in Ancillary Services as a Load Resource;

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(ii) Sites with erroneous ESI ID numbers; and

(iii) Historical interval covering less than twelve months.

(14) ERCOT will provide these results as promptly as possible throughout the [DR Demand Response](#) MRA Resource identification submission process. QSEs may then use the results of this analysis in either preparing their MRA offers or in constituting their [DR Demand Response](#) MRA Resource.

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(15) During the [DR Demand Response](#) MRA Resource Identification process, ERCOT will notify all affected QSEs of any Site which has been submitted by more than one QSE. QSEs are responsible for resolving any such duplications.

4.5 Offer Submission for DR MRAs

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(1) [QSEs](#) representing a proposed DR MRA Resource shall submit an offer using the Demand Response MRA Offer Submission Form.

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(2) For each [DR Demand Response](#) MRA Resource, the QSE shall declare the following values that will be effective for each season being offered. the entire term of the MRA Agreement:

(a) An indication of whether all offered Seasons must be awarded as one package, or that indicated Seasons may be excluded from an ERCOT award without affecting the offers submitted for other Seasons.

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(b) The Standby Price shall represent the total expected payment per MW per hour for successfully fulfilling the terms of the MRA agreement and other requirements as specified in this document.

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(3) Regardless of whether the [DR Demand Response](#) MRA Resource was evaluated during the Resource Identification process described above, ERCOT staff will analyze data for each awarded [DR Demand Response](#) MRA Resource and will provide the following information to the submitting QSE:

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(a) Whether ~~The DR~~ [the Demand Response](#) MRA Resource, as submitted, qualifies for a default baseline. If the [DR Demand Response](#) MRA Resource is qualified for a default baseline, ERCOT may include a list of baseline options (may be more than one option).

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(b) Any error and exception reports, including Sites offered by more than one QSE, Sites currently suspended from participation in [ER Emergency Response Service](#) or in Ancillary Services as a Load Resource, Sites with erroneous ESI ID numbers or DUNS numbers, non-interval metering, and/or meter data covering less than twelve months.

(c) Statistical results based on the historical data analyzed for the Load to determine the applicability of default baselines to assist the QSE in understanding the historical accuracy level of the baseline Load estimates. QSEs should consult the "Default Baseline Methodology" document, posted to the ~~ERCOT ERS Web Page~~ [ERCOT ERS Web Page](#), for details in interpreting historical accuracy levels.

(4) If the [DR Demand Response](#) MRA Resource as offered fails to qualify for a default baseline, ERCOT shall confirm with the offering QSE that the QSE is willing to provide the offered capacity via the Substitution process described above before awarding the offered capacity.

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(5) By submitting a [DR Demand Response](#) MRA Offer, the QSE affirms that it has obtained full authorization from all Sites within the [DR Demand Response](#) MRA Resource to obtain their historical usage analysis from ERCOT, and that the [DR Demand Response](#) MRA Resource holds ERCOT harmless for providing such analysis to the QSE.

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(6) Any offer that includes a Site submitted by more than one QSE is subject to rejection by ERCOT.

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(7) As indicated in the RFP, a QSE is allowed to withdraw its offer at any time prior to the MRA contract award date.

#### 4.5.1 Baselines for [DR Demand Response](#) MRA Resources

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(1) As described in the [DR Demand Response](#) MRA Resource Identification section of this document, ERCOT will evaluate interval meter data from Loads to determine their baseline options.

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- (2) A Load may qualify for multiple baseline options; in such a case, its QSE may select a baseline from the options offered by ERCOT. The baseline will be used to verify the Load's performance as compared to its contracted capacity during an MRA deployment event.
- (3) A selected baseline applies to the [DRDemand Response](#) MRA Resource and, if applicable, its substitution resource, throughout the term of the MRA Agreement.
- (4) All Sites within an aggregated [DRDemand Response](#) MRA Resource must be on the same baseline type.

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#### 4.5.1.1 Baselines

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- (1) The primary goal of a baseline is to accurately estimate a Load's level of electric energy usage under "business as usual" conditions – that is, in the absence of an MRA deployment – for any given interval. This estimate can then be compared to the Load's interval meter data from an MRA deployment event to determine its performance throughout the Sustained Response Period. Depending on the baseline type, analysis of at least twelve months of historic interval meter data may be necessary for ERCOT to determine whether a Load can be modeled accurately under a default baseline.
- (2) A Demand Response MRA must qualify for one or more options described in the document titled "Demand Response Baseline Methodologies" posted on the ERCOT website, available at the following URL: <https://www.ercot.com/services/programs/load>. The baseline will be used to verify the Demand Response MRA's performance as compared to its contracted capacity during an MRA deployment event. QSEs and Loads may use these methodologies for estimating their own specific baseline for a particular day or event.
  - (a) ERCOT will determine which of the baselining methods described produces the most accurate estimates for each Site by applying the methods to historical non-event days.
  - (b) For a [DRDemand Response](#) MRA Resource that consists of aggregations of Sites, the baseline for the [DRDemand Response](#) MRA Resource is determined by aggregating the baselines across the participating Sites. If, at the aggregate level, ERCOT determines that the historical baseline accuracy (mean absolute difference) is greater than 20% of the offered capacity, the offer will be rejected. ERCOT shall verify the performance at the DR MRA Resource level.
  - (c) If, based on historical data, the amount of capacity offered indicates that an availability failure is highly likely, the offer will be rejected.

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#### 4.6 Participation by Sites in NOIE Territories

- (1) Sites associated with a Dynamically Scheduled Resource (DSR) may not participate in the MRA RFP. Offers for Resources containing Sites associated with a DSR will be rejected by ERCOT. If ERCOT determines that any participating Site is associated with a DSR, the Site will be treated as removed from the Resource on the date the determination was made. A [DR Demand Response](#) MRA Resource's obligation during an MRA deployment event or test will not change as a result of any such Site removal.
- (2) Sites situated in NOIE service territories are eligible to participate in the MRA. ~~Any non-NOIE QSE wishing to represent Sites in a NOIE service territory must obtain written authorization from the NOIE to represent the Site. This authorization must be signed by an individual with authority to bind the NOIE and must be submitted to ERCOT prior to the submission of any offer on behalf of one or more such Sites.~~
- (3) Sites within NOIE service territories generally are not assigned an ESI ID within the ERCOT system. Exceptions to this include a Site directly metered by IDR metering at a NOIE Settlement Metering Point, and certain non-Settlement ESI IDs that have been installed by the NOIE TDSP for purposes other than ERCOT Settlement. ERCOT must be able to track the performance history of Non-ESI ID Sites and therefore must have assurance that the Site Identification and Unique Meter ID associated with a Site participating as an MRA Resource must continue to assign the same name to the Site throughout the terms of the MRA Agreement. The QSE representing the [DR Demand Response](#) MRA Resource must not change a Unique Meter ID assigned to a Site participating as a [DR Demand Response](#) MRA Resource throughout the term of the MRA Agreement.
- (4) If a proposed Demand Response MRA is situated in a NOIE service territory, within 14 days of submission of the proposal to provide MRA Service, ERCOT shall contact the Transmission and/or Distribution Service Provider(s) (TDSP(s)) identified by the submitting QSE in the Demand Response Offer Submission Forms to obtain 12 months of premise-level interval meter data. If a Site was energized within the last 12 months, and has interval data starting before January 1, 2024, the required data should begin on the Site's energization date. Timely receipt of such interval data from the TDSP(s) is a prerequisite to entering into an agreement to provide MRA Service.

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#### 4.7 Participation by Registered Load Resources (LRs)

- (1) The following combinations are ineligible to participate as a [DR Demand Response](#) MRA Resource and will be rejected:
  - (a) For one or more Sites in the [DR Demand Response](#) MRA Resource, the LR QSE is different from the [DR Demand Response](#) MRA Resource QSE;

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- (b) The QSE indicates that an LR is not present, but the ERCOT systems indicate the presence of an active LR at that ESI ID;
- (c) The QSE indicates a LR is present, but no LR is present in the ERCOT systems at that ESI ID; or
- (d) The ESI ID field on the submission form is blank.

(2) A Registered Load Resource associated with an [ESID ESI ID](#) that is also participating as a [DR Demand Response](#) MRA Resource must not offer to provide [AS Ancillary Services](#) during any of the hours the [ESID ESI ID](#) is committed for the MRA. Any such dual commitment will be treated as a breach of the terms of the MRA Agreement.

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**5 ADDITIONAL INFORMATION FOR OTHER GENERATION MRA RESOURCES AND DEMAND RESPONSE MRA RESOURCES**

(1) ERCOT intends, [to the greatest extent possible](#), to follow gray-boxed Protocols Section 3.14.4.6 for Other Generation MRAs and Demand Response MRAs for metering, availability, and event performance, especially sections:

- 3.14.4.6.3 MRA Metering and Metering Data;
- 3.14.4.6.4 MRA Availability Measurement and Verification; and
- 3.14.4.6.5 MRA Event Performance Measurement and Verification.

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