

**Winter 2023-24 Contracts for Capacity
Governing Document**

**October 23, 2023**

**Revision History**

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[1 STANDARDS APPLICABLE TO ALL CAPACITY SOURCES 3](#_Toc148956744)

[1.1 General 3](#_Toc148956745)

[1.2 Remedies for Material Failure to Perform 5](#_Toc148956746)

[1.3 Force Majeure 6](#_Toc148956747)

[2 STANDARDS FOR GENERATION RESOURCES AND ENERGY STORAGE RESOURCES 6](#_Toc148956748)

[2.1 General 6](#_Toc148956749)

[2.2 Standby and Energy Payments for Generation Resources 7](#_Toc148956750)

[2.3 Testing for Generation Resources 8](#_Toc148956751)

[2.4 Standby Payments for Energy Storage Resources 9](#_Toc148956752)

[2.5 Additional Settlement Information for Energy Storage Resources 10](#_Toc148956753)

[2.6 Testing for Energy Storage Resources 10](#_Toc148956754)

[3 STANDARDS FOR DEMAND RESPONSE CAPACITY SOURCES 10](#_Toc148956755)

[3.1 Definitions 11](#_Toc148956756)

[3.2 General 11](#_Toc148956757)

[3.3 Standby Payments for Demand Response Capacity Sources 12](#_Toc148956758)

[3.4 DR Capacity Source Identification and Eligibility 13](#_Toc148956759)

[3.5 Offer Submission 15](#_Toc148956760)

[3.6 Metering & Meter Data 16](#_Toc148956761)

[3.6.1 Meter Data Submitted to ERCOT by TDSPs in Competitive Choice Areas 16](#_Toc148956762)

[3.6.2 Meter Data for DR Capacity Sources in NOIE Territories 16](#_Toc148956763)

[3.6.3 Meter Data for DR Capacity Sources Other Than a Registered TDSP 17](#_Toc148956764)

[3.7 Availability Measurement & Verification 17](#_Toc148956765)

[3.7.1 DR Capacity Source Monthly Availability Calculations 18](#_Toc148956766)

[3.8 Event Performance Measurement & Verification 19](#_Toc148956767)

[3.9 Testing 21](#_Toc148956768)

This Governing Document establishes the standards governing the participation of any source of capacity that is the subject of a contract with ERCOT entered into pursuant to the October 2, 2023, Request for Proposals (RFP) seeking capacity for the winter 2023-24 Peak Load Season. As described in the RFP, ERCOT expects to execute one or more Contracts for Capacity with Entities providing at least 1 MW of capacity from certain Generation Resources, Energy Storage Resources, and certain Demand response (DR) sources. For the purposes of this document, any source of generation or DR capacity that operates under such a contract is referred to as a “Capacity Source,” any such contract is referred to as a “Contract for Capacity,” and the entire period of obligation under the Contract for Capacity is the “Contract Period.” Unless otherwise specifically indicated in this Governing Document, capitalized terms used in this document should be understood to have the meaning assigned in ERCOT Protocols Section 2.1, Definitions.

# STANDARDS APPLICABLE TO ALL CAPACITY SOURCES

## General

1. Any Entity that is bound by a Contract for Capacity is obligated to follow the terms of this Governing Document.
2. Capacity Sources must be complete and available to operate before the first day of obligation. Generation Resource and Energy Storage Resource Capacity Sources must be compliant with all interconnection and operational requirements in the ERCOT Protocols and Other Binding Documents and in PUC rules.
3. For the purposes of this Governing Document, all references to “QSE” shall be understood to refer to the Qualified Scheduling Entity (QSE) designated by the Resource Entity for a Generation Resource or Energy Storage Resource Capacity Source.
4. ERCOT may deploy each Demand response Capacity Source up to three times during the Contract Period, with each deployment lasting no more than six hours. ERCOT may deploy Generation Resource Capacity Sources any number of times during the Contract Period and for any duration, subject to the limitations in paragraph 6 of this Section. ERCOT may deploy Energy Storage Resource Capacity Sources any number of times during the Contract Period. Energy Storage Resource Capacity Sources will only be deployed during the hours of obligation and subject to the limitations in paragraph 6 of this section, and each deployment shall last no more than six hours. For an Energy Storage Resource Capacity Source, the maximum quantity that can be offered is the MW quantity that can be sustained for six consecutive hours.
5. Each Capacity Source must be available for deployment during one of the following periods within the Contract Period. For the purposes of this document, the period during which the Capacity Source is obligated to deploy is referred to as the “Hours of Obligation” for the Capacity Source.
	1. Each Generation Resource must be available all hours of every day during the Contract Period.
	2. Each Energy Storage Resource Capacity Source must be available for all of the hours in one of the three following periods, as identified in its Contract for Capacity based on the designations in its response to the RFP:
		1. ESR Category 1: All hours during the period from Hour Ending 0500 through Hour Ending 1000 every day during the Contract Period
		2. ESR Category 2: All hours during the period from Hour Ending 1800 through Hour Ending 2300 every day during the Contract Period
		3. ESR Category 3: All hours during both of the following periods every day during the Contract Period:
			1. Hour Ending 0500 through Hour Ending 1000, and
			2. Hour Ending 1800 through Hour Ending 2300.
	3. Each DR Capacity Source must be available for all hours in one of the four following periods, as identified in its Contract for Capacity based on the designations in its response to the RFP:
		1. DR Category 1: All hours of every day during the Contract Period
		2. DR Category 2: All hours during the period from Hour Ending 0500 through Hour Ending 1000 every day during the Contract Period
		3. DR Category 3: All hours during the period from Hour Ending 1800 through Hour Ending 2300 every day during the Contract Period
		4. DR Category 4: All hours during both of the following periods every day during the Contract Period:
			1. Hour Ending 0500 through Hour Ending 1000, and
			2. Hour Ending 1800 through Hour Ending 2300.
6. ERCOT may commit and/or Dispatch a Generation Resource Capacity Source, Energy Storage Resource Capacity Source, or DR Capacity Source at any time during the Capacity Source’s Hours of Obligation during a Contract Period for the purpose of utilizing the Capacity Source’s awarded capacity. ERCOT may deploy Capacity Sources when Physical Responsive Capability (PRC) is expected to, or does, fall below 2,500 MW and is not expected to be recovered above 2,500 MW within 30 minutes, or when frequency falls below 59.91 Hz for 15 consecutive minutes. At its discretion, ERCOT may deploy all Capacity Sources simultaneously or separately.
7. For all Capacity Sources, the Standby Payment is based on the total Hours of Obligation during the Contract Period for the specific Resource. For any Resource Entity or QSE that commits under a Contract for Capacity to accelerate the Initial Synchronization date for its Generation Resource or Energy Storage Resource, the Hours of Obligation during the Contract Period will include only those hours up through the earlier of February 29, 2024 or the day immediately preceding the original projected date of Initial Synchronization reflected in the ERCOT Resource Integration and Ongoing Operations (RIOO) system as of October 2, 2023.

## Remedies for Material Failure to Perform

If an Entity materially fails to perform its obligations under this Governing Document, including without limitation by failing to make available the amount of awarded capacity to ERCOT by the date required, by failing to meet the minimum availability requirements applicable to the type of Capacity Source, as described in this document, or by failing to provide the awarded amount of response when Dispatched in the manner described in this Governing Document, ERCOT may take any or all of the following actions:

* Reduce payment in the manner described in the Payment Sections below;
* Foreclose any further participation by the Capacity Source by terminating the Contract for Capacity; or
* Refer the contracting Entity to the Public Utility Commission of Texas for enforcement action, which may include the assessment of administrative penalties.

## 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.

# *STANDARDS FOR GENERATION RESOURCES AND ENERGY STORAGE RESOURCES*

## General

1. Each Resource Entity and QSE that represents a Generation Resource Capacity Source is required to follow all requirements in the ERCOT Protocols that apply to Resource Entities or QSEs, respectively, that represent Generation Resources, including without limitation all requirements concerning registration and telemetry, except where this Governing Document expressly provides otherwise. Each Resource Entity and QSE that represents an Energy Storage Resource Capacity Source is required to follow all requirements in the ERCOT Protocols that apply to Resource Entities or QSEs, respectively, that represent Energy Storage Resources, including without limitation all requirements concerning registration and telemetry, except where this Governing Document expressly provides otherwise.
2. Each QSE representing a Generation Resource or Energy Storage Resource Capacity Source must be capable of receiving an ERCOT Reliability Unit Commitment (RUC) Verbal Dispatch Instruction (VDI) and Security Constrained Economic Dispatch (SCED) Base Points. The QSE may meet this requirement with either of the following two options:
3. 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
4. An awarded QSE may use an Agency Agreement with a certified Level 4 QSE to provide the required communication.
5. During the Contract Period, a Generation Resource or Energy Storage Resource Capacity Source must be available to be committed by ERCOT to provide energy up to its awarded capacity during any Hour of Obligation. ERCOT may commit the Generation Resource or Energy Storage Resource in advance of an Hour of Obligation to operate during an Hour of Obligation. A Generation Resource or Energy Storage Resource Capacity Source must achieve operation at its LSL within the startup time specified in Attachment 2 to the Contract for Capacity.

A Generation Resource or Energy Storage Resource Capacity Source must be able to follow a SCED Base Point

1. A Generation Resource or Energy Storage Resource Capacity Source shall be committed only through a RUC VDI and shall not operate except when committed by ERCOT via RUC or as part of an ERCOT-instructed Capacity Test.
2. Data values submitted via COP or telemetry are subject to validation using actual 15-minute metered generation.
3. A QSE shall telemeter a Resource Status of EMR for any Generation Resource or Energy Storage Resource Capacity Source that is offline but available for commitment and a Resource Status of ONRUC when it has come On-Line in response to a VDI.
4. For each QSE representing a Generation Resource or Energy Storage Resource Capacity Source, ERCOT will create a proxy Energy Offer Curve to ensure that all energy from the Generation Resource or Energy Storage Resource is offered at the ERCOT System-Wide Offer Cap (SWCAP).
5. For each QSE representing a Generation Resource or Energy Storage Resource Capacity Source, ERCOT shall increase the O&M cost such that every point on the Mitigated Offer Cap (MOC) curve is greater than the SWCAP in $/MWh.

## Standby and Energy Payments for Generation Resources

1. ERCOT shall pay the QSE for a Generation Resource Capacity Source an hourly standby payment. The standby payment for a Generation Resource shall be based on the contracted standby price and shall be calculated and settled in accordance with the calculation and Settlement of standby payments for Reliability Must-Run (RMR) Units under Protocols Section 6.6.6, Reliability Must-Run Settlements, except that the Incentive Factor may be greater than or less than 10%, the Rolling Equivalent Availability Factor will be calculated as described in this document, and Settlement amounts may be further adjusted based on testing or performance, as provided in this document.

QSEs representing Generation Resource Capacity Sources will be compensated for fuel costs incurred during an event deployment or an ERCOT-required Capacity Test based on the Fuel Index Price (FIP), plus a fuel adder provided by the QSE or Resource Entity. The QSE representing the Generation Resource may recover any incremental fuel costs incurred by submitting to ERCOT the actual cost paid for fuel. However, the QSE will not be compensated for fuel costs incurred during a re-test as described in 2.3 Testing.

1. ERCOT may require the QSE representing the Generation Resource to submit the actual eligible cost including fuel costs, incurred during the Contract Period, and standby payments may be adjusted to reflect the actual cost incurred instead of the budgeted costs.
2. Notwithstanding the calculation of the Reliability Must-Run Hourly Rolling Equivalent Availability Factor as described in Protocols Section 6.6.6.1, RMR Standby Payment, and Protocol Section 3.14.1.17, Incentive Factor, for purposes of this Contract for Capacity, the Reliability Must-Run Hourly Rolling Equivalent Availability Factor shall be calculated monthly as the total number of hours the Generation Resource was available per the Current Operating Plan (COP) during the Hours of Obligation during the month, divided by the total Hours of Obligation in the month. The actual Reliability Must-Run Availability Reduction Factor will be calculated as described in Protocols section 6.6.6.1, RMR Standby Payment. For purposes of any Contract for Capacity, the Reliability Must-Run Target Availability shall be set to 100%.
3. The Incentive Factor shall be reduced if the Generation Resource fails to perform to the contracted capacity during a Capacity Test as described in Section 2.3 of this document or during an event deployment. The reduction in the Incentive Factor will be linear, with a 2% reduction in the Incentive Factor for every 1% that the average level of output over the test or the event, as measured starting at the end of the Resource’s designated startup period, falls below the level of awarded capacity.
4. Each Generation Resource Capacity Source will be modeled in the ERCOT Settlement System and in ERCOT pricing systems as an RMR Resource and will be subject to treatment as an RMR Resource for all Settlement and pricing purposes unless otherwise specified in this document or in the ERCOT Protocols.

## Testing for Generation Resources

1. ERCOT may conduct a Capacity Test of any Generation Resource Capacity Source at any time during the Contract Period and will limit testing to no more than once per month during the Contract Period. One re-test per month is permitted upon request of the QSE representing the Generation Resource.
2. ERCOT shall limit the duration of deployments of any single test to a maximum of one hour.

## Standby Payments for Energy Storage Resources

1. ERCOT shall pay the QSE for an Energy Storage Resource Capacity Source an hourly standby payment. The standby payment for an Energy Storage Resource shall be based on the contracted standby price and shall be calculated and settled in accordance with the calculation and Settlement of standby payments for Reliability Must-Run (RMR) Units under Protocols Section 6.6.6, Reliability Must-Run Settlements, except that the Incentive Factor may be greater than or less than 10%, the Reliability Must-Run HourlyRolling Equivalent Availability Factor will be calculated as described in this document, and Settlement amounts may be further adjusted based on testing or performance, as provided in this document. Energy Storage Resources will be compensated for energy consumed 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 as described in section 2.6. An ESR shall only consume energy in hours that are not Hours of Obligation, and it must be fully charged 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.
2. Notwithstanding the calculation of the Reliability Must-Run HourlyRolling Equivalent Availability Factor as described in Protocols Section 6.6.6.1, RMR Standby Payment, and Protocols Section 3.14.1.17, Incentive Factor, for purposes of this Contract for Capacity, the Reliability Must-Run HourlyRolling Equivalent Availability Factor shall be calculated monthly as the total number of hours the Energy Storage Resource was available per the Current Operating Plan (COP) during the Hours of Obligation during the month, divided by the total Hours of Obligation in the month. The actual Reliability Must-Run Availability Reduction Factor will be calculated as described in Protocols section 6.6.6.1, RMR Standby Payment. For purposes of any Contract for Capacity, the Reliability Must-Run Target Availability shall be set to 100%.
3. The Incentive Factor shall be reduced if the Energy Storage Resource fails to perform to the contracted capacity during a Capacity Test as described in Section 2.6 of this document or during an event deployment. The reduction in the Incentive Factor will be linear, with a 2% reduction in the Incentive Factor for every 1% that the average level of output over the test or the event, as measured starting at the end of the Resource’s designated startup period, falls below the level of awarded capacity. Each Energy Storage Resource Capacity Source will be modeled in the ERCOT Settlement System and in ERCOT pricing systems as an RMR Resource and will be subject to treatment as an RMR Resource for all Settlement and pricing purposes unless otherwise specified in this document or in the ERCOT Protocols. All Ancillary Service Imbalance credits the ESR may have realized due to the modeled Controllable Load Resource associated with the Energy Storage Resource shall be clawed back by reducing the total monthly Standby Payment or the reimbursement of the charging costs.

## Additional Settlement Information for Energy Storage Resources

1. The modeled Controllable Load Resource associated with an Energy Storage Resource is not exempt from Base Point Deviation charges.
2. The energy consumed by an Energy Storage Resource during the Contract Period may be subject to the Securitization Default charge. (This charge historically has been between $0.008/MWh and $0.02/MWh.)
3. The energy consumed by an Energy Storage Resource during the Contract Period may be subject to charges related to Default Uplift Invoices as described in Protocol Section 9.19.1.

## Testing for Energy Storage Resources

1. ERCOT may conduct a Capacity Test of any Energy Storage Resource Capacity Source at any time during the Hours of Obligation during the Contract Period and will limit testing to no more than once per month during the Contract Period. One re-test per month is permitted upon request of the QSE representing the Energy Storage Resource.
2. ERCOT shall limit the duration of deployments of any single test to a maximum of one hour.

# STANDARDS FOR DEMAND RESPONSE CAPACITY SOURCES

This section describes the requirements for a DR Capacity Source. Eligible DR Capacity Sources include individual Sites (as defined in Section 3.1) and aggregations of individual Sites served by a Transmission and/or Distribution Service Provider (TDSP) located in the ERCOT Region. Sites with onsite unregistered Distributed Generation, registered Settlement Only Generators (SOG), or unregistered energy storage, are eligible to participate in a DR Capacity Source so long as they meet the price-responsiveness criteria and other requirements described in Section 3.4, but such participation is limited to reductions in their premise-level Load. Injection to the grid from Settlement Only Generators, onsite unregistered Distributed Generators or unregistered energy storage will not be included as eligible capacity. Eligibility requirements for Site participation in a DR Capacity Source are detailed below in Section 3.4, DR Capacity Source Identification and Eligibility. A DR Capacity Source need not be represented by a QSE for the purposes of a Contract for Capacity.

## Definitions

The following terms are defined as follows only for the purposes of Section 3 of this Governing Document:

**Contracted Month** – Any month or part thereof in which a Capacity Source is obligated under a Capacity Contract.

**Demand Response Capacity Source –** A Capacity Source that will meet its Capacity Contract performance requirements by reducing Energy consumption in response to a deployment instruction.

**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, and other types of metering meeting the accuracy standards described in the Metering & Meter Data section of this document.

**Ramp Period** – Period of time beginning with ERCOT’s issuance of a dispatch instruction requesting deployment and ending at the time the capacity from a DR Capacity Source is required to be delivered. The Ramp Period for DR Capacity Sources may be 30 minutes in duration.

**Site** – A Customer Premise that is either an individual DR Capacity Source or a member of an aggregated DR Capacity Source.

**Unique Meter ID** – A unique Identifier assigned to any Site that is within the service territory of a Non-Opt In Entity (NOIE) or is used for a Site without interval metering.

## General

1. An Entity representing a DR Capacity Source must:
	1. Have the capability to communicate with each Site in its Capacity Source in such a way as to allow the Capacity Source to meet its performance obligations in a deployment event,
	2. Have the capability of receiving and responding to an instruction from ERCOT issued via an automated messaging system that can communicate through different methods, and

c) Instruct each Capacity Source to deploy its contracted capacity.

1. ERCOT shall dispatch DR Capacity Sources during deployment events or unannounced tests using its automated messaging system (ERCOT will not issue instructions via a QSE Hotline call because offering Entities may not be QSEs).
	1. For a Category 1 DR Capacity Source, the time of the transmission of the deployment instruction shall represent the start of the Ramp Period.
	2. For a Category 2, 3, or 4 DR Capacity Source, if the transmission of the deployment instruction occurs more than 30 minutes prior to the period of obligation, the Ramp Period shall be extended to end when the period of obligation begins.
	3. Otherwise, for a Category 2, 3, or 4 DR Capacity Source, the time of the transmission of the deployment instruction shall represent the start of the Ramp Period.
2. When deployed, a DR Capacity Source must curtail its consumption by an amount equal to its awarded capacity by the end of the Ramp Period. A Category 1 DR Capacity Source must stay deployed until the earlier of an ERCOT recall instruction or the expiration of six hours following the end of the ERCOT deployment instruction. A Category 2 DR Capacity Source must stay deployed until the earlier of an ERCOT recall instruction or 10:00 a.m. A Category 3 DR Capacity Source must stay deployed until the earlier of an ERCOT recall instruction or 11:00 p.m. A Category 4 DR Capacity Source must stay deployed until the earlier of (1) an ERCOT recall instruction and (2) 10:00 a.m., if the instruction was issued before 10:00 a.m., or 11:00 p.m., if the instruction was issued after 10:00 a.m.
3. Following a recall instruction or a recall based on the end of a DR Capacity Source’s Hours of Obligation, the DR Capacity Source must return to service within 5 hours if it is a Category 1 or 4 DR Capacity Source and must return to service within 18 hours if it is a Category 2 or 3 DR Capacity Source.

## Standby Payments for Demand Response Capacity Sources

1. A DR Capacity Source may offer to participate in any or all of the four DR categories identified in Section 1.1; ERCOT will award only one of the four categories for the DR Capacity Source.
2. Any Entity with a DR Capacity Source that is subject to a Contract for Capacity will be paid a standby payment equal to the Capacity Source’s awarded capacity multiplied by the awarded standby price multiplied by the total number of Hours of Obligation in the Contract Period, subject to adjustments for availability, event performance, and test performance, as described below. Any Entity representing a DR Capacity Source that utilizes generation to offset co-located Customer load will not be compensated for fuel costs.
3. The total Standby payments for DR Capacity Sources will be allocated monthly to QSEs representing loads, based on hourly load ratio share (HLRS) over all hours of the month in the Contract Period. The allocation will be done using a Miscellaneous Invoice after the final settlement has occurred for each calendar month in the Contract Period.

## DR Capacity Source Identification and Eligibility

1. QSEs or other Entities submitting an offer in response to the RFP for a DR Capacity Source must identify in the Offer Submission Form each participating Site that will make up the DR Capacity Source.
2. A DR Capacity Source may consist of a single Site or multiple Sites.

An accurate Site name, street address, and ZIP Code is required for each submitted Site.

1. The completed Offer Submission Form must include one or more of the following meter identifiers for each submitted Site:
2. An ESI ID number for any Site where an ESI ID is present, including:
3. All Sites situated in competitive choice areas of the ERCOT Region;
4. A NOIE Settlement metering point if the meter at that point is dedicated to the Site that will be in the DR Capacity Source; or
5. A non-Settlement ESI ID within a NOIE footprint.
6. 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, provided that Unique Meter IDs must be distinct and must remain consistent throughout the Contract Period. 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.
7. A Unique Meter ID for Sites that do not have a TDSP installed AMS/IDR and for which the QSE or other entity is submitting interval data pursuant to paragraph 3.6,3, Meter Data for DR Capacity Sources Other Than a Registered TDSP.
8. The Site must have been energized and have had a meter with interval recording capability since May 1, 2023. If these requirements are not met, the offer for that DR Capacity Source will be rejected.
9. By submitting an offer Submission Form for a DR Capacity Source, the offering entity affirms that it has obtained written authorization from each Customer whose Load is included in the DR Capacity Source to offer the Customer’s capacity for this purpose.
	1. Performance of DR Capacity Sources during actual deployment events or unannounced tests will be determined using one of the baseline methods described in the document titled ‘Demand Response Baseline Methodologies’ available at the following URL: https://www.ercot.com/services/programs/load.
	2. 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.
	3. The baseline for the DR Capacity Source 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.
	4. If, based on historical data, the amount of capacity offered indicates that an availability failure is highly likely, the offer will be rejected.
10. A Site is not eligible to participate in a DR Capacity Source if the Site or some portion of the Site load at any point since December 1, 2021 has participated as an ERCOT Load Resource or in one of the following:
	1. Emergency Response Service (ERS)
	2. Any TDU Load Management Program, unless the Site participated in the program only during some part or all of a summer Peak Load Season and the Site was not enrolled in such a program for winter 2023-24 as of October 2, 2023 and is not currently enrolled in such a program for winter 2023-24
	3. Any Demand response or price response program offered by a Load Serving Entity, a NOIE TDSP, or a third-party DR provider, unless the Site participated in the program only during some part or all of the summer Peak Load Season and the Site was not enrolled in such a program for winter 2023-24 as of October 2, 2023 and is not currently enrolled in such a program for winter 2023-24.
11. The capability of a Site may be offered into only one DR Capacity Source. If ERCOT determines that the same Site has been offered in more than one DR Capacity Source, ERCOT will consider the Site to be ineligible for a DR Capacity Source offer other than the one that is received first.
12. ERCOT will perform an analysis to determine whether a Site has shown evidence of responding to real-time prices over the time period beginning on December 1, 2022. Sites that reduced load on more than 25% of the high price days (i.e., days when prices were more than $200 for 4 or more consecutive intervals) and with an average load reduction greater than 5% on those days are deemed to be price responsive and are ineligible to participate in a DR Capacity Source.
13. Any Site whose Load is associated with a Dynamically Scheduled Resource (DSR) may not be offered as part of a DR Capacity Source. ERCOT may reject any offer that includes such a Site. Following an executed Contract for Capacity, if ERCOT determines that any participating Site is associated with a DSR, the awarded capacity associated with that Site will be treated as removed from the Capacity Source on the date the determination was made. A DR Capacity Source’s obligation during a deployment event or test will not change as a result of any such Site removal.
14. For DR Capacity Source offers that are submitted in advance of the offer deadline, ERCOT will endeavor to send notices of Site ineligibility and allow submission of a revised offer. As of the deadline date for offers, all DR Capacity Sources that contain one or more ineligible Sites will be rejected.

## Offer Submission

1. Each entity offering a DR Capacity Source shall submit its offer using the Offer Sheet and the DR Capacity Source Site Information spreadsheet.
2. For each DR Capacity Source, the offering entity shall declare the offered standby price, which shall represent the total expected payment per MW for successfully fulfilling the terms of the Contract for Capacity in accordance with the requirements of the RFP and this document.
3. Each entity offering a DR Capacity Source with one or more Sites located in a NOIE service territory must provide a fully executed NOIE authorization form demonstrating the NOIE’s consent to a non-NOIE entity offering and representing the Site’s participation in the DR Capacity Source. The NOIE authorization form is included in the RFP.

## Metering & Meter Data

Each DR Capacity Source and each Site within a DR Capacity Source that consists of an aggregation of Sites must have dedicated 15-minute premise-level Interval Metering, subject to approval by ERCOT.

### Meter Data Submitted to ERCOT by TDSPs in Competitive Choice Areas

For ESI IDs situated in competitive choice areas of the ERCOT Region, meter data is stored in the ERCOT systems and will be accessed by ERCOT using the ESI ID number provided in the Offer Submission Form.

### Meter Data for DR Capacity Sources in NOIE Territories

1. Entities offering DR Capacity Sources that include Sites located in a territory served by a NOIE are responsible for arranging with the NOIE TDSP to provide ERCOT with 12 months of premise-level interval meter data. If a Site was energized within the last 12 months, and has interval data starting before May 1, 2023, the 12-month requirement will not apply. As a condition for offering a DR Capacity Source, an entity must identify each NOIE TDSP in whose service territory any Site within the DR Capacity Source is located and confirm that it has received written authorization from that TDSP to provide all meter data that may be required to verify DR capability, availability, and performance. ERCOT must receive interval data from a NOIE TDSP for purposes of baseline analysis on or before the due date for offer submission.
2. ERCOT must receive interval data from a NOIE TDSP for performance evaluation on a monthly basis within 35 days of the end of each calendar month or within 35 days of a test or event deployment.
3. The interval data must be provided to ERCOT in one of the file formats defined in ERCOT’s “Interval Data File Format Descriptions” document, which is available at the following URL: https://www.ercot.com/files/docs/2015/12/08/interval\_data\_file\_format\_descriptions.doc.
4. If ERCOT has not received the required meter data for a Site from the NOIE TDSP in time to perform the required baseline analysis, the offer for the DR Capacity Source containing that Site will be rejected.

### Meter Data for DR Capacity Sources Other Than a Registered TDSP

1. Entities providing meter data from a source other than a registered TDSP are required to submit such data according to the following:
	1. If an offering entity provides premise-level sub-meter data for a Site that is also an interval-metered ESI ID within the ERCOT system, ERCOT will use the ESI ID data from its system.
	2. The data must be provided in one of the formats described at the following URL: <https://www.ercot.com/services/programs/load/eils/documents>.
	3. The data must be submitted on a monthly basis and is due at ERCOT no later than 35 days after the last day of a calendar month.
	4. The data must be submitted to ERCOT no later than 35 days after a deployment event or ERCOT unannounced test.
2. Within 35 days after the end of the Contract Period the contracting entity must submit an affidavit signed by a licensed Professional Engineer affirming that all submitted data meets the following:
	1. The metering used to produce the data adheres to accuracy standards consistent with PUC Subst. Rule § 25.142, Submetering and ERCOT Section 10.9.2, TDSP or DSP Metered Entities, and
	2. The data has been subjected to Validation, Editing and Estimation (VEE) consistent with the requirements in the Protocols, Section 10.11.3, TSP or DSP Settlement Meters.
3. In the absence of a signed affidavit, ERCOT will treat the DR Capacity Source containing the Site as having not been available and not to have responded during all tests and events during the Contract Period.

## Availability Measurement & Verification

1. DR Capacity Source availability will be evaluated on a monthly basis.
2. After each month of the Contract Period, and before providing payment under the Contract for Capacity, ERCOT shall provide each offering entity representing a DR Capacity Source with an availability report for each DR Capacity Source represented by that entity.

### DR Capacity Source Monthly Availability Calculations

1. ERCOT will calculate a Monthly Availability Factor for each DR Capacity Source as follows:
	1. ERCOT will consider the DR Capacity Source to have been available for any 15-minute interval during its Hours of Obligation in which the DR Capacity Source’s Actual Premise Load was greater than 95% of the DR Capacity Source’s awarded obligation; otherwise, the DR Capacity Source will be considered unavailable for that 15-minute interval. The Monthly Availability Factor will be the ratio of the number of 15-minute intervals the DR Capacity Source was available during its Hours of Obligation during the Contracted Month divided by the total number of obligated 15-minute intervals during its Hours of Obligation in the Contracted Month.
	2. The DR Capacity Source’s standby payment will be adjusted for availability as follows:

|  |  |
| --- | --- |
| Calculated Monthly Availability Factor (AF) | Adjusted Availability Factor |
| If Monthly AF is greater than or equal to 95% | 100% |
| If Monthly AF is less than 95% but greater than or equal to 85% | Calculated Monthly Availability Factor |
| If Monthly AF is less than 85% | Square of the Calculated Monthly Availability Factor  |

1. The following intervals will be excluded in ERCOT’s calculations of a DR Capacity Source’s availability factor:
	1. Any 15-minute interval in which a DR Capacity Source was deployed during a deployment event or an ERCOT test;
	2. Any 15-minute intervals on the day of an ERCOT deployment or test during the period of time allowed for returning to service as specified in paragraph 4 of Section 3.2, General; and
	3. Any 15-minute interval that one or more Sites within a DR Capacity Source were disabled or unverifiable due to events on the TDSP side of the meter affecting the supply, delivery, or measurement of electricity to the Load. Offering Entities must provide verification of such events from the TDSP or Meter Reading Entity (MRE) for that month.

## Event Performance Measurement & Verification

1. Following the end of each month of the Contract Period, but before payment, ERCOT will provide each entity representing a DR Capacity Source with an event performance report containing the results of ERCOT’s evaluation of the event(s) for each DR Capacity Source for that month.
2. ERCOT will calculate a DR Capacity Source’s interval performance factors for intervals during an ERCOT test or an event deployment using the following formulas:

**MIPF*i* = Max(Min(((Base\_MWh*i* - Actual\_MWh*i*) / (IntFrac*i* \* Award MWh)),1),0)**

The above variables are defined as follows:

|  |  |  |
| --- | --- | --- |
| **Variable** | **Unit** | **Description** |
| **MIPF*i*** | None | Interval performance factor for that interval. |
| IntFraci | None | Interval fraction for that DR Capacity Source for that interval. |
| Base\_MWhi | MWh | The aggregated sum of baseline MWh values estimated by ERCOT for all Sites in the DR Capacity Source for that interval. |
| Actual\_MWhi | MWh | The aggregated sum of the Site-specific metered actual MWh values for all Sites in the DR Capacity Source for that interval. |
| Award MWh | MWh | The DR Capacity Source’s Obligation expressed in units of MWh.  |
| I | None | A Settlement Interval. |

As used in the preceding formula, IntFraci corresponds to the fraction of time for that interval for which the deployment is in effect and is computed as follows:

**IntFrac*i*= (CEndT*i* – CBegT*i*) / 15**

The above variables are defined as follows:

|  |  |  |
| --- | --- | --- |
| Variable | Unit | Description |
| IntFraci | None | Interval fraction for that DR Capacity Source for that interval. |
| CBegTi | Minutes | If the deployment begins after the start of that interval, the time in minutes from the beginning of that interval to the beginning of deployment; otherwise, it is zero. |
| CEndTi | Minutes | If the deployment ends during that interval, the time in minutes from the beginning of that interval to the end of the deployment; otherwise, it is 15. |
| I | None | A Settlement Interval. |

1. For each ERCOT test or deployment of a DR Capacity Source, ERCOT may calculate an event performance factor as the time-weighted arithmetic average of the DR Capacity Source’s interval performance factors, as calculated above, for the intervals covered by the test/event. The event performance factor calculation will begin with the first partial or full interval in the deployment and will end with the last full interval in the deployment.
2. If a test or deployment period does not include at least one full interval, performance for the test or deployment will not be determined.
3. For a Category 1 DR Capacity Source, the deployment will end at the earlier of an ERCOT recall instruction or the expiration of six hours following the end of the ERCOT deployment instruction. For a Category 2 DR Capacity Source, the deployment will end at the earlier of an ERCOT recall instruction or 10:00 a.m. For a Category 3 DR Capacity Source, the deployment will end at the earlier of an ERCOT recall instruction or 11:00 p.m. For a Category 4 DR Capacity Source, the deployment will end at the earlier of (1) the time ERCOT issues a recall instruction to the entity representing the DR Capacity Source and (2) the earlier of 10:00 a.m., if the deployment instruction was issued before 10:00 a.m., or 11:00 p.m., if the deployment instruction was issued after 10:00 a.m.
4. Event performance factors are expressed as a number between 0 and 1. ERCOT will assign final factors to three decimal points using standard rounding procedures. For example, a factor of 0.94950 will round to 0.950; a factor of 0.94949 will round to 0.949.
5. A DR Capacity Source that achieves an event performance factor of 0.95 or greater for a test or event and an interval performance factor of 0.95 or greater for the first full interval of the test or event will be deemed to have successfully met its deployment obligations for that test/event.
6. If a DR Capacity Source achieves an event performance factor of less than 0.95 for the test or event, or for the first full interval of a test or event, the interval performance factors for that event will be multiplied by an adjustment factor such that the adjusted event performance factor for the test or event will be equal to the square of the original event performance factor.
7. If, during a Contracted Month, ERCOT has deployed a DR Capacity Source at least once for either an ERCOT test or an event deployment, the event performance factor for the Contracted Month shall be the time-weighted average of the interval performance factor values for all tests and events in the Contracted Month. The interval performance factors used for this calculation shall reflect any squaring applied pursuant to the preceding paragraph.

## Testing

1. ERCOT may conduct a test of any DR Capacity Source at any time during the Capacity Source’s Hours of Obligation during the Contract Period with at least 48 hours’ notice and will limit testing to no more than once per Contracted Month unless the DR Capacity Source requests a retest.
2. ERCOT will not conduct a test of a DR Capacity Source during any month in which an event deployment has already occurred.
3. ERCOT shall limit the duration of deployments of any single test to a maximum of one hour.