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| NPRR Number | [1229](https://www.ercot.com/mktrules/issues/NPRR1229) | NPRR Title | Real-Time Constraint Management Plan Energy Payment |
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| Date | May 8, 2024 |
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| Submitter’s Information |
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| Market Segment | Cooperative |

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| Comments |

STEC submits these comments to Nodal Protocol Revision Request (NPRR) 1229 per ERCOT’s feedback.

STEC did neglect to include the charge for funding the Constraint Management Plan Energy Payment. Language submitted below to provide for a Real-Time Constraint Management Plan Energy Charge.

One other minor reorganization to the “CMPEAMT” formula to ensure the full payment includes the startup costs and attested losses.

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| Revised Cover Page Language |

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| Nodal Protocol Sections Requiring Revision  | 6.6.3.9, Real-Time Constraint Management Plan Energy Payment (new)6.6.3.10, Real-Time Constraint Management Plan Energy Charge (new) |

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| Revised Proposed Protocol Language |

**6.6.3.9 Real-Time Constraint Management Plan Energy Payment**

(1) If a Generation Resource trips Off-Line as a result of or subsequent to the implementation of a Constraint Management Plan (CMP) directly impacting transmission equipment connected to the Generation Resource or issues a Verbal Dispatch Instruction (VDI) to a Generation Resource or its Transmission Operator to operate its equipment to produce the same effect, and the QSE suffers a demonstrable financial loss, the QSE may be eligible for a Real-Time Constraint Management Plan Energy Payment, as calculated below, upon providing documented proof of that loss. In order to qualify for this payment the QSE must:

(a) Have impacted the Generation Resource On-line with breaker closed;

(b) Have tripped Off-Line following implementation of a CMP directly impacting transmission equipment connected to the Generation Resource or a VDI to the Generation Resource or its Transmission Operator to operate equipment to produce the same effect;

(c) Have incurred a demonstrable financial loss in consequence of the CMP directly impacting transmission equipment connected to the Generation Resource or a VDI to the Generation Resource or its Transmission Operator to operate equipment to produce the same effect; and

(d) File a timely Settlement and billing dispute, including the following items:

(i) An attestation signed by an officer or executive with authority to bind the QSE;

(ii) The dollar amount and calculation of the financial loss by Settlement Interval, including:

(A) Financial losses associated with:

(1) Variable cost components of DAM obligations; or

(2) Energy purchase or sale provisions of bilateral contracts, including wholesale power contracts or other contracts of Electric Cooperatives (ECs) or Municipally Owned Utilities (MOUs) to serve their Loads; or

(3) Opportunity costs in the Real-Time Market (RTM) if the Resource does not meet items (1) or (2) above; and

(B) Actual and indirect costs incurred due a Forced Outage. Such costs include, but are not limited to:

(1) Costs associated with a Forced Outage if the result of the trip is due to the implementation of the CMP or equivalent VDI;

(2) Additional staff or contractor time as a result of the Forced Outage;

(3) Costs of equipment rental (including but not limited to cranes, manlifts, welding machines, etc.);

(4) Costs of facility rentals and other incidental incremental costs incurred by the Resource, its QSE, or its fuel supplier (e.g. mine-related expenses) created by the Forced Outage; and

(5) The cost of materials to be repaired or replaced that is a direct result of the Forced Outage.

(iii) An explanation of the nature of the loss and how it was attributable to the CMP or equivalent VDI issued by ERCOT; and

(iv) Sufficient documentation to support the QSE’s calculation of the amount of the financial loss.

(2) The time frame to be included in CMP Energy Payment calculation will start at the Settlement Interval of initial trip and will conclude in the Settlement Interval at the soonest of:

(a) The Generation Resource is On-Line and available for Dispatch as per telemetry;

(b) The first hour of availability for ERCOT Dispatch (e.g. Resource Status other than OUT) as per the COP; or

(c) The latest planned end of the Generation Resource Outage as shown in the Outage Scheduler.

(3) ERCOT may request additional supporting documentation or explanation with respect to the submitted materials within 15 Business Days of receipt. Additional information requested by ERCOT must be provided by the QSE within 15 Business Days of ERCOT’s request. ERCOT will provide Notice of its acceptance or rejection of the claim for the Real-Time Constraint Management Plan Energy Payment within 15 Business Days of the updated submission.

(4) The Energy Offer Curve used to calculate the Real-Time Constraint Management Plan Energy Payment will be the current Mitigated Offer Curve for the Generation Resource that was effective for the disputed interval(s) when the CMP or equivalent VDI was active.

(5) The Startup costs available for the Generation Resource will be limited to the lesser of:

(a) The most recent valid Day-Ahead Startup Offer received for the Generation Resource; or

(b) The Day-Ahead Startup Cap for the Resource’s Category Startup Offer Generic Cap unless ERCOT has approved verifiable unit-specific Startup Costs for the Resource.

(6) The payment shall be calculated as follows:

CMPEAMT = (-1){(Max (0, (RTSPP*p* – MOC*q, r, h*)) \* HSL*q, r, h* \* (¼)) + SUPR*q, p, r* + CMPLOAL*q, r, p, i*}

SUPR*q, p, r* = Min(SUO*q, p, r*, SUCAP*q, p, r*)

Where: If the QSE submitted a validated Three-Part Supply Offer for the Resource,

Then, SUPR *q, r, s* = Min (SUO *q, r, s*, SUCAP *q, r, s*)

Otherwise, SUPR *q, r, s* = SUCAP *q, r, s*

If ERCOT has approved verifiable Startup Costs and minimum-energy costs for the Resource,

Then, SUCAP *q, r, s* = verifiable Startup Costs *q, r, s*

Otherwise, SUCAP *q, r, s* = RCGSC *s*

The above variables are defined as follows:

| **Variable** | **Unit** | **Definition** |
| --- | --- | --- |
| CMPLOAL *q, r, p, i* | $ | *Constraint Management Plan attested losses*—The financial loss to the QSE due trip Off-Line of Resource following implementation of CMP or equivalent VDI as attested by the QSE in accordance with paragraph (1)(d) above. |
| CMPEAMT *q, r, p, i* | $ | *Constraint Management Plan energy amount per QSE per Generation Resource*—The payment to QSE *q* during eligible hours of a trip offline from an ERCOT-issued CMP or equivalent VDI for Generation Resource *r* at Settlement Point *p* for the 15-minute Settlement Interval *i*. For a combined cycle Resource, *r* is a Combined Cycle Train. |
| SUPR *q, r, s* | $/MWh | *Startup Price*—The Settlement price for Resource *r* represented by QSE *q* for the start *s*. Where for a Combined Cycle Train, the Resource *r* is a Combined Cycle Generation Resource within the Combined Cycle Train. |
| SUO *q, p, r* | $/start | *Startup Offer per start*—Represents an offer for all costs incurred by GenerationResource r represented by QSE *q* in starting up and reaching the Resource’s LSLfor the start *s*. Where for a Combined Cycle Train, the Resource r is a CombinedCycle Generation Resource within the Combined Cycle Train. |
| SUCAP*q, p, r* | $/start | *Startup Cap*—The amount used for AGR *r* or Resource *r* represented by QSE *q*for the start *s* as Startup Costs. The cap is the Resource Category Startup OfferGeneric Cap (RCGSC) unless ERCOT has approved verifiable unit-specificStartup Costs for that Resource, in which case the startup cap is the scaledverifiable unit-specific Startup Cost for the AGR or the verifiable unit-specificStartup Cost for non-AGRs. The verifiable unit-specific Startup Cost will bedetermined as described in Section 5.6.1, Verifiable Costs, minus the averageenergy produced during the time period between breaker close and LSLmultiplied by the heat rate proxy “H” multiplied by the appropriate Fuel IndexPrice (FIP), Fuel Oil Price (FOP) or solid fuel price, for AGR and non-AGRResources. Where for a Combined Cycle Train, the Resource *r* is a CombinedCycle Generation Resource within the Combined Cycle Train. |
| RTSPP *p, i* | $/MWh | *Real-Time Settlement Point Price per Settlement Point*—The Real-Time Settlement Point Price at Settlement Point *p*, for the 15-minute Settlement Interval *i*. |
| MOC *q, r, h*  | $/MWh | *Mitigated Offer Cap per Resource*—The MOC for Resource *r* represented by QSE *q* for the eligible hour *h* at the HSL as submitted in the COP. Where for a Combined Cycle Train, the Resource *r* is a Combined Cycle Generation Resource within the Combined Cycle Train. |
| RCGSC *s* | $/Start | *Resource Category Generic Startup Cost*—The Resource Category Generic Startup Cost cap for the category of the Resource, according to Section 4.4.9.2.3, Startup Offer and Minimum-Energy Offer Generic Caps, for the Operating Day. |
| *q* | None | A QSE. |
| *r* | None | A Generation Resource. |
| *p* | None | A Resource Node Settlement Point. |
| *i* | None | A 15-minute Settlement Interval. |

(7) The total compensation to each QSE for a trip offline due to ERCOT CMP or equivalent VDI for the 15-minute Settlement Interval is calculated as follows:

**CMPEAMTQSETOT *q, i* = {CMPEAMT *q, r, p, i*} / (intervals of outage)**

The above variables are defined as follows:

| **Variable** | **Unit** | **Definition** |
| --- | --- | --- |
| CMPEAMT *q, r, p, i* | $ | *Constraint Management Plan energy amount per QSE per Generation Resource*—The payment to QSE *q* for trip offline from an ERCOT-issued CMP or equivalent VDI for Generation Resource *r* at Settlement Point *p* for the 15-minute Settlement Interval *i*. For a combined cycle Resource, *r* is a Combined Cycle Train. |
| CMPEAMTQSETOT*q, i* | $ | *Constraint Management Plan energy amount QSE total per QSE*—The total of the energy payments to QSE *q* as compensation for HDL overrides for this QSE for the 15-minute Settlement Interval *i*. |
| *q* | none | A QSE. |
| *r* | none | A Generation Resource. |
| *p* | none | A Resource Node Settlement Point. |
| *i* | none | A 15-minute Settlement Interval. |

6.6.3.10 Real-Time Constraint Management Plan Energy Charge

(1) ERCOT shall allocate to QSEs on an LRS basis the total amount of the payment specified in Section 6.6.3.9, Real-Time Constraint Management Plan Energy Payment. The charge to each QSE for a given 15-minute Settlement Interval is calculated as follows:

LACMPEAMT *q, i*  = (-1) \* CMPEAMTTOT \* LRS *q, i*

Where:

CMPEAMTTOT *i* =  CMPEAMTQSETOT *q, i*

The above variables are defined as follows:

| **Variable** | **Unit** | **Definition** |
| --- | --- | --- |
| LACMPEAMT *q* | $ | *Load-Allocated Constraint Management Plan energy amount per QSE*—The charge to QSE *q* for Constraint Management Plan energy payment as identified in 6.6.3.9, for the 15-minute Settlement Interval. |
| CMPEAMTTOT *i* | $ | *Constraint Management Plan energy amount total*—The total of payments to all QSEs Constraint Management Plan energy payments, for the 15-minute Settlement Interval *i*. |
| CMPEAMTQSETOT *q, i* | $ | *Constraint Management Plan energy amount QSE total per QSE*—The total of the energy payments to QSE *q* as compensation for a Constraint Management Plan energy payment for this QSE for the 15-minute Settlement Interval *i*. |
| LRS *q, i* | none | *The Load Ratio Share* calculated for QSE *q* for the 15-minute Settlement Interval *i*. See Section 6.6.2.2, QSE Load Ratio Share for a 15-Minute Settlement Interval. |
| *q* | none | A QSE. |
| *i* | none | A 15-minute Settlement Interval. |