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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 | January 2, 2025 |
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| Submitter’s Information |
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| Market Segment | Cooperative |

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| Comments |

STEC submits the following edits to Nodal Protocol Revision Request (NPRR) 1229 to address some outstanding issues with ERCOT.

The name of the payment of the NPRR was updated to help identify this payment is for cost recovery and distinct from a payment for energy. This language is to recover costs following manual actions taken by ERCOT.

These comments include better, more accurate Settlement formulas, billing descriptions, determinants, and terminology to match the latest version which includes three types of payments:

1. Financial – bilateral contracts or Day-Ahead Market (DAM) obligations for up to four days;
2. Repair costs up to $500k; and
3. One-time Startup costs.

With the change to the name of this type of payment, the billing determinants and descriptions were updated. The edits include a cap on the financial payments similar to the cap as found in High Dispatch Limit Override (HDLO) payments. The repair costs allowed were specified to be per event. Startup payments were specified to be attributed to the first Operating Day of the trip. The billing language was edited to include the dispute timeline noted in Section 9.14.2, Notice of Dispute, and includes accommodation for the issuance of miscellaneous Invoices to Qualified Scheduling Entities (QSEs) representing Load for approved disputes for this payment to Resources.

Other minor revisions were included throughout for better understanding.

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| Revised Cover Page Language |

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| NPRR Number | [1229](https://www.ercot.com/mktrules/issues/NPRR1229) | NPRR Title | Real-Time Constraint Management Plan Cost Recovery Payment |
| Nodal Protocol Sections Requiring Revision  | 6.6.3.9, Real-Time Constraint Management Plan Cost Recovery Payment (new)6.6.3.10, Real-Time Constraint Management Plan Cost Recovery Charge (new)6.6.3.11, Miscellaneous Invoice for Cost Recovery Payments and Charges for a Real-Time Constraint Management Plan (new) |

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| Revised Proposed Protocol Language |

**6.6.3.9 Real-Time Constraint Management Plan Cost Recovery Payment**

(1) If a Generation Resource trips Off-Line from a transmission equipment operation that would have normally not tripped the unit Off-Line but for the activation of a Constraint Management Plan (CMP) or a Verbal Dispatch Instruction (VDI) issued by ERCOT which subjects a Generation Resource to N-1 contingency that could trip the Generation Resource Off-Line the QSE may be eligible for a Real-Time Constraint Management Plan Cost Recovery Payment, as calculated in paragraph (6) below, upon providing documented proof of the financial and repair cost. A Generation Resource impacted by the CMP or VDI shall not be eligible for a CMP cost recovery payment under any of the following two conditions:

(a) If the Resource Entity for this Generation Resource agreed with the CMP to subject the Generation Resource to the N-0 condition.

(b) If ERCOT must issue a VDI to open the Generation Resource’s breaker due to the Generation Resource improperly following ERCOT instructions without notifying ERCOT that the CMP or VDI would physically harm the Resource.

(2) To qualify for a Constraint Management Plan Cost Recovery Payment the following conditions must be met:

(a) The CMP or VDI must have financially impacted the Generation Resource that tripped Off-Line;

(b) The Generation Resource must have tripped Off-Line from a transmission equipment operation in an N-1 contingency following activation of a CMP directly impacting transmission equipment connected to the Generation Resource or an equivalent VDI issued by ERCOT to the Generation Resource or its Transmission Operator to operate equipment to produce the same effect; and

(c) The QSE must 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 demonstrable financial loss by Settlement Interval and the total repair cost for the CMP event, including:

(A) Demonstrable financial losses (excluding lost opportunity costs) while Resource is in an Outage caused by the CMP or equivalent VDI unit trip Off-Line and with a Resource Status of OUT, associated with one of the following:

(1) QSEs representing Generation Resources in their portfolio with a bilateral contract to sell energy at its Resource Node; or

(2) Incremental costs incurred by a QSE in the Real-Time Market (RTM) to serve its Load if the outage for the Resource is in the same QSE portfolio as the Load, and causes the QSE to be short energy compared to its Load for the intervals affected by the outage; or

(3) Variable cost components of DAM obligations; and

(B) Actual costs incurred to repair the plant equipment directly attributable to the Forced Outage caused by the CMP activation or equivalent VDI. The maximum amount recoverable shall be capped at $500,000 per event. 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 or its QSE created by the Forced Outage; and

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

(C) Costs covered under paragraphs (A) and (B) above do not include:

(1) Capital expenditures.

(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.

(3) The period used to calculate the Constraint Management Plan Cost Recovery 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; or

(b) Ninety six Operating Hours after the Resource trips Off-Line.

(4) ERCOT may request additional supporting documentation or explanation with respect to the submitted materials within 60 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, or request additional clarification as needed.

(5) The Startup costs available for the Generation Resource will be based on the Resource’s Category Startup Offer Generic Cap unless ERCOT has approved verifiable unit-specific Startup Costs for the Resource. If applicable, the calculated Verifiable Startup costs will be based on FIP or FOP fuel prices for the Operating Day when the Resource tripped Off-Line.

(6) The Constraint Management Plan Cost Recovery Payment shall be calculated for the period described in paragraphs (3) and (5) above as follows:

CMPCRAMT *q, r, p, i* = (-1) \* (CMPFALA *q, r, p, i*  + CMPRALA *q, r, p, i*  + CMPSUPR*q, r, p, i*)

Where:

CMPFALA *q, r, p, i* = Min (CMPFAL *q, r, p, i,* Max (0, (RTSPP *p, i*  – RTRSVPOR *i*  – RTRDP *i*  – RTEOCOST *q, r, p, i*) \* (1/4) \* CMPHSL *q, r, p, h* ))

And,

Where the repair costs are allocated equally over the intervals corresponding to the period determined in paragraph (3) above

CMPRALA *q, r, p, i* = Min ($500,000*,* CMPRAL *q, r, p*) / Total number of intervals in CMP period

And,

Where on the first Operating Day of the period determined in paragraph (3) above, a cold startup cost is allocated evenly across the CMP event intervals. Subsequent Operating Days in the CMP event will not have startup cost allocations.

CMPSUPR *q, r, p, i*  = CMPSUCAP *q, r, p, cold*  / Total number of CMP period intervals in the first Operating Day of the CMP event

The above variables are defined as follows:

| **Variable** | **Unit** | **Definition** |
| --- | --- | --- |
| CMPCRAMT *q, r, p, i* | $ | *Constraint Management Plan Cost Recovery Amount* per QSE per Generation Resource—The payment to QSE *q* during eligible intervals of a Resource trip offline from an ERCOT-issued CMP unit trip or equivalent VDI for Resource *r*, at Settlement Point *p* for the 15-minute Settlement Interval *i*. Where, for a Combined Cycle Resource, *r* is a Combined Cycle Train. |
| CMPFALA *q, r, p, i* | $ | *Constraint Management Plan Financial Attested Losses Allowed per QSE per Generation Resource*— The payment for financial attested losses to QSE *q* for an ERCOT-issued CMP unit trip or equivalent VDI for Generation Resource *r,* at Settlement Point *p* for the 15-minute Settlement Interval *i*. Where, for a Combined Cycle Resource, *r* is a Combined Cycle Train. |
| CMPFAL *q, r, p, i* | $ | *Constraint Management Plan Demonstrable Financial Attested Losses* —The demonstrable financial loss to QSE *q* for Resource *r,* at Settlement Point *p* due to an ERCOT-issued CMP unit trip or equivalent VDI, as attested by the QSE, and in accordance with costs described in paragraph (2)(iii)(b)(A) above, for the 15-minute Settlement Interval *i*. Where, for a Combined Cycle Resource, *r* is a Combined Cycle Train. |
| CMPRALA *q, r, p, i* | $ | *Constraint Management Plan Repair Cost Attested Losses Allowed per QSE per Generation Resource —* The payment for repair costs attested losses to QSE *q* for an ERCOT-issued CMP unit trip or equivalent VDI for Generation Resource *r*, at Settlement Point *p* for the 15-minute Settlement Interval *i*. Where for a Combined Cycle Resource, *r* is a Combined Cycle Train. |
| CMPRAL *q, r, p* | $ | *Constraint Management Plan Repair Attested Losses*— The total Generation Resource repair cost due to trip off-Line of Resource following implementation of an ERCOT-issued CMP or equivalent VDI as attested by the QSE *q* and in accordance with costs described in paragraph (2)(iii)(b)(B) above. For a combined cycle Resource, *r* is a Combined Cycle Train. |
| CMPSUPR *q, r, p, i* | $/Start | *Startup Price per start*—The Settlement price for Resource *r* represented by QSE *q* for the cold start, for the 15-minute Settlement Interval. Where for a Combined Cycle Train, the Resource *r* is a Combined Cycle Generation Resource within the Combined Cycle Train. |
| RTEOCOST *q, r, p, i* | $/MWh | *Real-Time Energy Offer Curve Cost Cap*—The Energy Offer Curve Cost Cap for Resource *r* represented by QSE *q*, for the Resource’s generation above the LSL for the Settlement Interval *i*. See Section 4.4.9.3.3, Energy Offer Curve Cost Caps. Where for a Combined Cycle Train, the Resource *r* is the Combined Cycle Train. |
| CMPHSL *q, r, p, h* | MW | *Constraint Management Plan High Sustained Limit*— The High Sustained Limit (HSL) of Generation Resource *r* represented by QSE *q*, as submitted in the Current Operating Plan (COP), for the hour the Resource tripped off-line. Where for a Combined Cycle Resource, *r* is the Combined Cycle Generation Resource within the Combined Cycle Train that was online when the Resource tripped Off-Line. |
| 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*. |
| RTRSVPOR *i* | $/MWh | *Real-Time Reserve Price for On-Line Reserves* - The Real-Time Reserve Price for On-Line Reserves for the 15-minute Settlement Interval *i*. |
| RTRDP *i* | $/MWh | *Real-Time On-Line Reliability Deployment Price* - The Real-Time price for the 15-minute Settlement Interval *i*, reflecting the impact of reliability deployments on energy prices that is calculated from the Real-Time On-Line Reliability Deployment Price Adder. |
| CMPSUCAP *q, r, p, s* | $/Start | *Constraint Management Plan Startup Cap*—The CMP cap is the Resource Category Startup Offer Generic Cap (RCGSC) unless ERCOT has approved verifiable unit-specific Startup Costs for that Resource, in which case the CMP startup cap will be verifiable unit-specific Startup Cost determined as described in Section 5.6.1. Where for a Combined Cycle Train, the Resource *r* is a Combined Cycle Generation Resource within the Combined Cycle Train. |
| *q* | None | A QSE. |
| *r* | None | A Generation Resource. |
| *p* | None | A Resource Node Settlement Point. |
| *i* | None | A 15-minute Settlement Interval. |
| *h* | None | An Operating Hour. |
| *cold* | None | A cold start  |

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

**CMPCRAMTQSETOT *q, i* = CMPCRAMT *q, r, p, i***

The above variables are defined as follows:

| **Variable** | **Unit** | **Definition** |
| --- | --- | --- |
| CMPCRAMT *q, r, p, i* | $ | *Constraint Management Plan Cost Recovery Amount per QSE per Generation Resource*—The payment to QSE *q* during eligible hours of a Resource trip Off-Line from an ERCOT-issued CMP unit trip 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. |
| CMPCRAMTQSETOT*q, i* | $ | *Constraint Management Plan Cost Recovery Amount QSE Total per QSE*—The total of the cost recovery payments to QSE *q* due to an ERCOT-issued CMP or equivalent VDI 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 Cost Recovery 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 Cost Recovery Payment. The charge to each QSE for a given 15-minute Settlement Interval is calculated as follows:

LACMPCRAMT *q, i*  = (-1) \* CMPCRAMTTOT \* LRS *q, i*

Where:

CMPCRAMTTOT *i* =  CMPCRAMTQSETOT *q, i*

The above variables are defined as follows:

| **Variable** | **Unit** | **Definition** |
| --- | --- | --- |
| LACMPCRAMT *q* | $ | *Load-Allocated Constraint Management Plan Cost Recovery Amount per QSE*—The charge to QSE *q* for Constraint Management Plan Cost Recovery Payment as identified in Section 6.6.3.9, for the 15-minute Settlement Interval. |
| CMPCRAMTTOT *i* | $ | *Constraint Management Plan Cost Recovery Amount total*—The total of payments to all QSEs Constraint Management Plan Cost Recovery Payments, for the 15-minute Settlement Interval *i*. |
| CMPCRAMTQSETOT *q, i* | $ | *Constraint Management Plan Cost Recovery Amount QSE total per QSE*—The total of the Constraint Management Plan Cost Recovery Payments to QSE *q* due to an ERCOT-issued CMP or equivalent VDI 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. |

6.6.3.11 Miscellaneous Invoice for Cost Recovery Payments and Charges for a Real-Time Constraint Management Plan

(1) All approved disputes shall be settled as described in Section 9.14.2, Notice of Dispute.

(2) ERCOT shall issue a miscellaneous Invoice to the QSE representing the Resource that has received a Constraint Management Plan payment, as described in Section 6.6.3.9, Real-Time Constraint Management Plan Cost Recovery Payment.

(3) ERCOT shall issue a miscellaneous Invoice to the QSE representing Load based on the LRS as described in Section 6.6.3.10, Real-Time Constraint Management Plan Cost Recovery Charge.

(4) ERCOT shall issue a Market Notice in conjunction with the issuance of miscellaneous Invoices for payments or charges for Real-Time Constraint Management Plan Settlement.

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| ***[NPRR1229: Delete Section 6.6.3.11 above upon system implementation.]*** |