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| NPRR Number | [1292](https://www.ercot.com/mktrules/issues/NPRR1292) | NPRR Title | Granular Product Type for CRR TOU |
| Date of Decision | | August 13, 2025 | |
| Action | | Tabled | |
| Timeline | | Normal | |
| Proposed Effective Date | | To be determined | |
| Priority and Rank Assigned | | To be determined | |
| Nodal Protocol Sections Requiring Revision | | 7.3, Types of Congestion Revenue Rights to be Auctioned  7.5.5.3 Auction Process  16.11.4.5, Determination of the Counter-Party Future Credit Exposure | |
| Related Documents Requiring Revision/Related Revision Requests | | None | |
| Revision Description | | This Nodal Protocol Revision Request (NPRR) creates the granular Congestion Revenue Right (CRR) Time Of Use (TOU) blocks to align with the current resource mix and improve auction speed and efficiency. Currently, CRRs are traded as weekday/weekend peak and off-peak, with no opportunity to further shape hedges. More granular CRR TOU blocks will divide weekday/weekend peak between solar and non-solar hours, providing a more targeted hedging product. | |
| Reason for Revision | | [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission  General system and/or process improvement(s)  Regulatory requirements  ERCOT Board/PUCT Directive  *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* | |
| Justification of Reason for Revision and Market Impacts | | Increase in Intermittent Renewable Resources (IRRs) has changed generation and congestion patterns in the system - current blocks (especially 5x16 and 2x16) show significant price variability due to differences between solar and non-solar hours with congestion values frequently shifting between positive and negative within the block. In addition, more granular blocks would allow market participants to hedge more efficiently with Obligations (over Options) which require fewer computational resources for CRR auction clearing, speeding up process and efficiency.  Using solar capacity in the last two years, the monthly solar hour values (start and end hour) have been proposed for times when solar capacity factors are over 25%:  **TOU Mapping**   * Solar and Non-Solar Hours per month of the year for Monday through Friday (excluding NERC holidays) – 2 TOUs * Solar and Non-Solar Hours per month of the year for Saturday and Sunday, and NERC holidays – 2 TOUs * 7x8 blocks for hours ending 0100-0600 and hours ending 2300-2400 Sunday through Saturday (No proposed changes) – 1 TOU   A yellow and grey grid with numbers  AI-generated content may be incorrect.  **Legend**   |  |  | | --- | --- | | Solar Weekday/Weekend TOUs (2 TOUs) |  | | Non-Solar Weekday/Weekend TOUs (2 TOUs) |  | | Off-Peak TOU (No proposed changes – 1 TOU) |  | | |
| PRS Decision | | On 8/13/25, PRS voted unanimously to table NPRR1292 and refer the issue to WMS. All Market Segments participated in the vote. | |
| Summary of PRS Discussion | | On 8/13/25, the sponsor provided an overview of NPRR1292. Participants requested additional review at WMS and for the Congestion Management Working Group (CMWG) to consider how the proposed language interacts with Daylight Saving Time, and how new blocks might align with blocks in the forward market. | |

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| **Opinions** | |
| **Credit Review** | To be determined |
| **Independent Market Monitor Opinion** | To be determined |
| **ERCOT Opinion** | To be determined |
| **ERCOT Market Impact Statement** | To be determined |

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| Sponsor | |
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| Company | Vistra Operations Company LLC |
| Phone Number |  |
| Cell Number | 832-215-5713; 214-288-2456 |
| Market Segment | Independent Generator |

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

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| **Market Rules Notes** |

None

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| Proposed Protocol Language Revision |

7.3 Types of Congestion Revenue Rights to Be Auctioned

(1) ERCOT shall auction the following types of Congestion Revenue Rights (CRRs):

(a) Point-to-Point (PTP) Options;

(b) PTP Obligations; and

(c) Flowgate Rights (FGRs) that are defined in Section 7.3.1, Flowgates.

(2) PTP Options are evaluated hourly in each CRR Auction as the positive power flows on all directional network elements created by the injection and withdrawal at the specified source and sink points in the quantity represented by the CRR bid or offer (MW), excluding all negative flows on all directional network elements.

(3) PTP Obligations are evaluated hourly in each CRR Auction as the positive and negative power flows on all directional network elements created by the injection and withdrawal at the specified source and sink points of the quantity represented by the CRR bid or offer (MW).

(4) PTP Options can only result in payments from ERCOT to the CRR Owner of record. A PTP Obligation may result in either a payment or a charge to the CRR Owner of record.

(5) CRRs must be auctioned in the following Time Of Use (TOU) blocks (having the same MW amount for each hour within the block):

(a) 5xhour (5x“H”) blocks for solar (“S”) and non-solar (“NS”) hours per month for Monday through Friday (excluding North American Electric Reliability Corporation (NERC) holidays), in one-month strips as follows:

(i) For the month of January, 5x8NS blocks for hours ending 0700-0900 and 1800-2200;

(ii) For the month of January, 5x8S blocks for hours ending 1000-1700;

(iii) For the month of February, 5x8NS blocks for hours ending 0700-0900 and1800-2200;

(iv) For the month of February, 5x8S blocks for hours ending 1000-1700;

(v) For the month of March, 5x7NS blocks for hours ending 0700-0900 and 1900-2200;

(vi) For the month of March, 5x9S blocks for hours ending 1000-1800;

(vii) For the month of April, 5x5NS blocks for hours ending 0700-0800 and 2000-2200;

(viii) For the month of April, 5x11S blocks for hours ending 0900-1900;

(ix) For the month of May, 5x5NS blocks for hours ending 0700-0800 and 2000-2200;

(x) For the month of May, 5x11S blocks for hours ending 0900-1900;

(xi) For the month of June, 5x4NS blocks for hours ending 0700-0800 and 2100-2200;

(xii) For the month of June, 5x12S blocks for hours ending 0900-2000;

(xiii) For the month of July, 5x4NS blocks for hours ending 0700-0800 and 2100-2200;

(xiv) For the month of July, 5x12S blocks for hours ending 0900-2000;

(xv) For the month of August, 5x5NS blocks for hours ending 0700-0800 and 2000-2200;

(xvi) For the month of August, 5x11S blocks for hours ending 0900-1900;

(xvii) For the month of September, 5x5NS blocks for hours ending 0700-0800 and 2000-2200;

(xviii) For the month of September, 5x11S blocks for hours ending 0900-1900;

(xix) For the month of October, 5x7NS blocks for hours ending 0700-0900 and 1900-2200;

(xx) For the month of October, 5x9S blocks for hours ending 1000-1800;

(xxi) For the month of November, 5x8NS blocks for hours ending 0700-0900 and 1800-2200;

(xxii) For the month of November, 5x8S blocks for hours ending 1000-1700;

(xxiii) For the month of December, 5x8NS blocks for hours ending 0700-0900 and 1800-2200; and

(xxiv) For the month of December, 5x8S blocks for hours ending 1000-1700.

(b) 2xhour (2x“H”) blocks for solar (“S”) and non-solar (“NS” hours per month for Saturday and Sunday, and NERC holidays in one-month strips as follows:

(i) For the month of January, 2x8NS blocks for hours ending 0700-0900 and1800-2200;

(ii) For the month of January, 2x8S blocks for hours ending 1000-1700;

(iii) For the month of February, 2x8NS blocks for hours ending 0700-0900 and1800-2200;

(iv) For the month of February, 2x8S blocks for hours ending 1000-1700;

(v) For the month of March, 2x7NS blocks for hours ending 0700-0900 and 1900-2200;

(vi) For the month of March, 2x9S blocks for hours ending 1000-1800;

(vii) For the month of April, 2x5NS blocks for hours ending 0700-0800 and 2000-2200;

(viii) For the month of April, 2x11S blocks for hours ending 0900-1900;

(ix) For the month of May, 2x5NS blocks for hours ending 0700-0800 and 2000-2200;

(x) For the month of May, 2x11S blocks for hours ending 0900-1900;

(xi) For the month of June, 2x4NS blocks for hours ending 0700-0800 and 2100-2200;

(xii) For the month of June, 2x12S blocks for hours ending 0900-2000;

(xiii) For the month of July, 2x4NS blocks for hours ending 0700-0800 and 2100-2200;

(xiv) For the month of July, 2x12S blocks for hours ending 0900-2000;

(xv) For the month of August, 2x5NS blocks for hours ending 0700-0800 and 2000-2200;

(xvi) For the month of August, 2x11S blocks for hours ending 0900-1900;

(xvii) For the month of September, 2x5NS blocks for hours ending 0700-0800 and 2000-2200;

(xviii) For the month of September, 2x11S blocks for hours ending 0900-1900;

(xix) For the month of October, 2x7NS blocks for hours ending 0700-0900 and 1900-2200;

(xx) For the month of October, 2x9S blocks for hours ending 1000-1800;

(xxi) For the month of November, 2x8NS blocks for hours ending 0700-0900 and 1800-2200;

(xxii) For the month of November, 2x8S blocks for hours ending 1000-1700;

(xxiii) For the month of December, 2x8NS blocks for hours ending 0700-0900 and1800-2200;

(xxiv) For month of December, 2x8S blocks for hours ending 1000-1700; and

(c) 7x8 blocks for hours ending 0100-0600 and hours ending 2300-2400 Sunday through Saturday, in one-month strips.

(6) CRR Auction bids and Pre-Assigned Congestion Revenue Right (PCRR) nominations must specify a TOU block.

(7) For the CRR Monthly Auction only, a single block bid may be submitted for all hours in a calendar month, which represents a linked-offer for all five TOU blocks described above in paragraph (5).

7.5.5.3 Auction Process

(1) The CRR Auction must be a single-round, simultaneous auction for selling the CRRs available for all auction products. ERCOT shall enter into the CRR Auction system a credit limit for each Counter-Party that has at least one CRR Account Holder. A Counter-Party’s CRR Auction credit limit is equal to the lesser of the credit limit as determined in Section 16.11.4.6.1, Credit Requirements for CRR Auction Participation, or, if provided, the Counter-Party’s self-imposed CRR Auction credit limit for the CRR Monthly Auction or for a time-of-use within a CRR Auction held as part of a CRR Long-Term Auction Sequence.

(2) Prior to the CRR Auction, ERCOT will conduct a two-part pre-auction screening process. First, if the Counter-Party’s CRR Auction credit limit is greater than that Counter-Party’s credit exposure as defined below using the CRR bid volumes rather than awarded volumes, then the Counter-Party’s CRR Auction credit limit will be ignored as the CRR Auction is solved. Second, for each CRR Account Holder of a Counter-Party, if the CRR Account Holder’s self-imposed credit limit is greater than that CRR Account Holder’s credit exposure as defined below, then the CRR Account Holder’s self-imposed credit limit will be ignored as the CRR Auction is solved.

The calculated exposure for the pre-auction screening for each CRR Account Holder is the sum of the credit exposure for PTP Obligation bids, PTP Obligation offers, and PTP Option bids for that CRR Account Holder. The calculated exposure for the pre-auction screening for each Counter-Party is the sum of the credit exposure for PTP Obligation bids, PTP Obligation offers, and PTP Option bids for that Counter-Party. PTP Option offers have zero credit exposure. Separately, for PTP Obligation bids, PTP Obligation offers, and PTP Option bids, for each source/sink Settlement Point combination, the credit exposure will use the bid price and MW quantity that produces the maximum credit exposure that could result from the CRR Auction for that source/sink Settlement Point combination.

(3) The credit constraint for each Counter-Party is based on the following calculation:

**ACR*b* = AOBLCR *b* + AOPTCR *b*- AOBLCRO *b***

Where:

AOBLCR *b* = ∑*m* ∑*h*∑*j, k*[(BOBLMW *m, h,(j, k), b*\* (Max(0, BPOBL *m, h,(j, k), b*) – Min(0,A *ci99, m, h,(j, k), b*, EACP *m, h,(j, k)*)))]

AOPTCR *b* = ∑*m* ∑*h*∑*j*, *k*[(BOPTMW *m, h,(j, k), b* \* BPOPT*m, h,(j, k), b*)]

AOBLCRO *b* = ∑*m* ∑*h*∑*j*, *k*(OOBLMW*m, h,(j, k), b* \* Min(0, OPOBL*m, h,(j, k), b*))

The above variables are defined as follows:

|  |  |  |
| --- | --- | --- |
| Variable | Unit | Description |
| ACR *b* | $ | *Auction Credit Requirement*—The auction credit requirement for a Counter-Party *b.* |
| AOBLCR *b* | $ | *Auction PTP Obligation Credit Requirement*—The auction credit requirement for all PTP Obligation bids submitted by a Counter-Party *b* for all Operating Days. |
| BOBLMW *m, h, (j, k), b* | MW | *Awarded Bid PTP Obligation*—The awarded bid PTP Obligation with the source *j* and sink *k* for the hour *h,* and month *m* submitted by a Counter-Party *b.* |
| BPOBL *m, h, (j, k), b* | $/MW per hour | *Bid Price for PTP Obligation*—Bid Price for PTP Obligationwith the source *j* and sink *k* for the hour *h,* and month *m* submitted by a Counter-Party *b.* |
| A*ci 99, m, h, (j, k), b* | $/MW per hour | *Path-Specific DAM-Based Adder*—The path-specific DAM-based adder with the source *j* and sink *k* for the hour *h,* and month *m* submitted by a Counter-Party *b*; calculated as 99th percentile of the average rolling consecutive DAM settled price for the reference CRR source/sink over a period that represents a month for each product type (18 days for 5xhour (5x“H”) blocks for solar (“S”) and non-solar (“NS”) hours as defined in Section 7.3(5)(a), 8 days for 2xhour (2x“H”) blocks for solar (“S”) and non-solar (“NS”) hours as defined in Section 7.3(5)(b), 28 days for 7\*8). The look-back period for DAM settled prices shall be the lesser of Nodal Market go-live to current time and current time minus three years. If historical Day-Ahead Settlement Point Prices (DASPPs) are not available for a Settlement Point for one or more Operating Days, ERCOT will designate a proxy Settlement Point for this purpose, and the DASPPs of the proxy Settlement Point of corresponding Operating Days are used. |
| EACP*m, h, (j, k)* | $/MW per hour | *Effective Auction Clearing Price*—The auction clearing price with the source *j* and sink *k* for the hour *h,* and month *m*.  For each CRR PTP Obligation, this value is equal to the auction clearing price of an awarded CRR selected as follows:  (a) Awarded CRRs with the source *j* and sink *k* containing hour *h* and operating month *m* are selected from the set of unexpired awarded PTP Obligations. If no awarded CRRs are found the EACP value is zero.  (b) If (a) results in more than one awarded CRR, awarded CRRs with the most recent award date are selected.  (c) If (b) results in more than one awarded CRR, then the awarded CRR with the lowest auction clearing price is selected. |
| AOBLCRO *b* | $ | *Auction PTP Obligation Credit Requirement for Offers*—The auction credit requirement for all PTP Obligation offers submitted by a Counter-Party *b* for all Operating Days. |
| OOBLMW*m, h, (j, k), b* | MW | *Awarded Offer PTP Obligation*—The awarded offer PTP Obligation with source *j* and sink *k* for the hour *h,* and month *m* submitted by a Counter-Party *b.* |
| OPOBL *m, h, (j, k ), b* | $/MW per hour | *Offer Price for PTP Obligation*—The offer price for PTP Obligation with the source *j* and sink *k* for the hour *h,* and month *m* submitted by a Counter-Party *b.* |
| AOPTCR *b* | $ | *Auction PTP Option Bid Credit Requirement*—The auction credit requirement for all PTP Option bids submitted by a Counter-Party *b.* |
| BOPTMW*m, h, (j, k),b* | MW | *Awarded Bid PTP Option*—The awarded bid PTP Option with the source *j* and sink *k* for the hour *h,* and month *m* submitted by a Counter-Party *b.* |
| BPOPT*m, h, (j, k), b* | $/MW per hour | *Bid Price for PTP Option*—The bid price for PTP Option with the source *j* and sink *k* for the hour *h,* and month *m* submitted by a Counter-Party *b*. |
| *b* | none | A Counter-Party. |
| *m* | none | An operating month. |
| *h* | none | An Operating Hour. |
| *j* | none | A source Settlement Point. |
| *k* | none | A sink Settlement Point. |
| *ci99* | none | 99th percentile confidence interval. |

(4) ERCOT may review preliminary CRR Auction results to ensure that post auction collateral requirements are satisfied for all CRR Account Holders participating in the CRR Auction. If it is practicable to rerun the applicable CRR Auction, and the post CRR Auction collateral requirements for a Counter-Party are not satisfied, ERCOT:

(a) Shall promptly notify the Counter-Party of the amount by which its Financial Security must be increased and allow it until 1500 on the next Bank Business Day from the date on which ERCOT delivered Notification to increase the Financial Security.

(b) If sufficient Financial Security is not received by 1500 on the next Bank Business Day, ERCOT shall void all of the Counter-Party’s bids and offers in the CRR Auction and rerun the CRR Auction without that Counter-Party’s activity.

(c) ERCOT shall award CRRs in quantities truncated to the nearest tenth MW (0.1 MW).

(d) The CRR clearing price is equal to the corresponding Shadow Price for that CRR product.

(e) Except as noted in paragraph (f) below, when a CRR Account Holder is awarded CRRs as a result of a CRR Auction, the CRRs do not become the property of the winning CRR Account Holder, and the CRRs may not be placed in their CRR accounts, until the required CRR Invoice has been paid.

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| ***[NPRR1023: Replace paragraph (e) above with the following upon system implementation:]***  (e) When a CRR Account Holder is awarded CRRs as a result of a CRR Auction, the CRRs do not become the property of the winning CRR Account Holder, and the CRRs may not be placed in their CRR accounts, until the required CRR Invoice has been paid. |

(f) Following a one-time auction of CRRs pursuant to Section 16.11.6.1.4, Repossession of CRRs by ERCOT, or Section 16.11.6.1.5, Declaration of Forfeit of CRRs, the CRRs may be placed in the account of the winning CRR Account Holder immediately upon determination of the winning bidder if the post-auction collateral requirement is satisfied and if ERCOT determines that the transfer is required to ensure the correctness of the inventory for any subsequent CRR Auction.

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| ***[NPRR1023: Delete paragraph (f) above upon system implementation.]*** |

(5) ERCOT shall use a linear programming auction engine model for each CRR Auction that evaluates all CRR Auction bids and CRR Auction offers submitted, and selects a combination of CRR Auction bids and CRR Auction offers that:

(a) Makes the solution simultaneously feasible within the limits of the ERCOT network capability over the auction term; and

(b) Maximizes the objective function, which is equal to the total economic value (as expressed in the CRR Auction bids) of the awarded CRR Auction bids, less the total economic cost (as expressed in CRR Auction offers) of the awarded CRR Auction offers, while observing all applicable constraints.

(6) The CRR Network Model must, to the extent practicable, reflect the continuous and post-contingency system operating limits and operational procedures (i.e., Remedial Action Schemes (RASs), Automatic Mitigation Plans (AMPs) and Remedial Action Plans (RAPs)) in the Network Operations Model used by ERCOT during Real-Time operations, as discussed below in Section 7.5.5.4, Simultaneous Feasibility Test.

(7) Once a CRR Auction is complete, ERCOT shall archive and keep the CRR Auction system and all models used to finalize the CRR Auction results under ERCOT’s data retention policy as that policy applies to data that may be needed to resolve requests for billing adjustments under applicable billing adjustment procedures.

(8) Once a CRR Auction is complete, ERCOT will make available on the MIS Certified Area each active CRR Account Holder’s credit exposure calculated within the CRR Auction process (as defined in paragraph (3) above).

**16.11.4.5 Determination of the Counter-Party Future Credit Exposure**

(1) ERCOT shall monitor and calculate the Counter-Party’s FCE for all the CRR Account Holders represented by the Counter-Party as CRR Owner of record at ERCOT.

FCE a = FCEOBL a + FCEOPT a

The above variables are defined as follows:

| Variable | Unit | Description |
| --- | --- | --- |
| FCE *a* | $ | *Future Credit Exposure* for all CRRs held by *all CRR Account Holders* represented by the Counter-Party. |
| FCEOBL *a* | $ | *Future Credit Exposure for PTP Obligations* for all PTP Obligations held by all CRR Account Holders represented by the Counter-Party as CRR Ownerof record at ERCOT, for all Operating Days in the current operating month, Prompt Month, and all Forward Months. |
| FCEOPT *a* | $ | *Future Credit Exposure for PTP Options* for all PTP Options held by all CRR Account Holders represented by the Counter-Party as CRR Ownerof record at ERCOT, for all Operating Days remaining in the current operating month and Prompt Month. |
| *a* | none | All CRR Account Holders represented by the Counter-Party. |

(2) The Counter-Party’s FCE for PTP Obligations (FCEOBL) held by all CRR Account Holders represented by the Counter-Party as CRR Owner of record at ERCOT are calculated as follows:

**FCEOBL** *a* **=** ∑*m* **[(∑*h*∑*j, k*NAOBLMW *m, h, (j, k)*) \* (-Min(0, PWA *ci100, m*, PWACP *m*))]**

**PWACP *m*=∑*h*∑*j, k*[NAOBLMW *m, h, (j, k)*\* EACP*m, h, (j, k)*] / ∑*h*∑*j, k*[NAOBLMW *m, h, (j, k)*]**

The above variables are defined as follows:

| **Variable** | **Unit** | **Description** |
| --- | --- | --- |
| FCEOBL *a* | $ | *Future Credit Exposure for PTP Obligations* for all PTP Obligations held by all CRR Account Holders represented by the Counter-Party as CRR Ownerof record at ERCOT for all Operating Days in the current operating month, Prompt Month, and all Forward Months. |
| NAOBLMW*m, h, (j, k)* | MW | *Net Awarded PTP Obligations*⎯Net awarded PTP Obligations with the source *j* and sink *k* for the hour *h* and month *m* owned by all CRR Account Holders represented by the Counter-Party as CRR Owner of record at ERCOT for all Operating Days in the current operating month, Prompt Month, and Forward Months. |
| PWA*ci100, m* | $/MW per hour | *Portfolio Weighted Adder*⎯The portfolio weighted adder calculated as the 100th percentile of a volume weighted average rolling consecutive DAM settled price for all CRR Account Holders represented by the Counter-Party as CRR Owner of record at ERCOT based on volumes owned for the month *m*, over a period that represents a month for each product type (18 days for 5xhour (5x“H”) blocks for solar (“S”) and non-solar (“NS”) hours as defined in Section 7.3(5)(a), 8 days for 2xhour (2x“H”) blocks for solar (“S”) and non-solar (“NS”) hours as defined in Section 7.3(5)(b), 28 days for 7\*8). The look-back period for DAM settled prices shall be the lesser of January 1, 2011 to the current time, and the current time minus three years. If historical Day-Ahead Settlement Point Prices (DASPPs) are not available for a Settlement Point for one or more Operating Days, ERCOT will designate a proxy Settlement Point for this purpose, and the DASPPs of the proxy Settlement Point of corresponding Operating Days are used. |
| PWACP *m* | $/MW per hour | *Portfolio Weighted Auction Clearing Price*⎯The portfolio weighted auction clearing price calculated as the volume weighted auction clearing price for all CRR Account Holders represented by the Counter-Party as CRR Owner of record at ERCOT based on the most recent auction clearing price for the month *m* and volumes owned for the month *m.* |
| EACP*m, h, (j, k)* | $/MW per hour | *Effective Auction Clearing Price*— The auction clearing price with the source *j* and sink *k* for the hour *h,* and month *m*.  For each CRR PTP Obligation, this value is equal to the auction clearing price of an awarded CRR selected as follows:  (a) Awarded CRRs with the source *j* and sink *k* containing hour *h* and operating month *m* are selected from the set of unexpired awarded PTP Obligations. If no awarded CRRs are found the EACP value is zero.  (b) If (a) results in more than one awarded CRR, awarded CRRs with the most recent award date are selected.  (c) If (b) results in more than one awarded CRR, then the awarded CRR with the lowest auction clearing price is selected. |
| *j* | none | A source Settlement Point. |
| *k* | none | A sink Settlement Point. |
| *m* | none | An operating month. |
| *h* | none | An Operating Hour. |
| *a* | none | All CRR Account Holders represented by the Counter-Party. |
| *ci100* | none | 100th percentile confidence interval. |

(3) The FCE for PTP Options (FCEOPT) held by all the CRR Account Holders represented by the Counter-Party as CRR Owner of record at ERCOT are calculated as follows:

FCEOPT a = - ∑m ∑h ∑j, k [(NAOPTMW m, h, (j, k)) \* Max(0, A ci99, ctou, (j, k))]

The above variables are defined as follows:

| **Variable** | **Unit** | **Description** |
| --- | --- | --- |
| FCEOPT *a* | $ | *Future Credit Exposure for PTP Options*⎯FCE for all PTP Options held by all CRR Account Holders represented by the Counter-Party as CRR Ownerof record at ERCOT for all Operating Days remaining in the current operating month and Prompt Month. |
| A *ci99, ctou, (j, k)* | $/MW per hour | *Path Specific DAM Based Adder*⎯Path specific DAM based adder calculated as 99th percentile of the average rolling consecutive DAM settled price for the CRR source *j* and sink *k* over a period that represents a month for each CRR Time Of Use (TOU) *ctou* product type (18 days for 5xhour (5x“H”) blocks for solar (“S”) and non-solar (“NS”) hours as defined in Section 7.3(5)(a), 8 days for 2xhour (2x“H”) blocks for solar (“S”) and non-solar (“NS”) hours as defined in Section 7.3(5)(b), 28 days for 7\*8). The look-back period for DAM settled prices shall be the lesser of January 1, 2011 to the current time, and the current time minus three years. If historical DASPPs are not available for a Settlement Point for one or more Operating Days, ERCOT will designate a proxy Settlement Point for this purpose, and the DASPPs of the proxy Settlement Point of corresponding Operating Days are used. |
| NAOPTMW*m, h, (j, k)* | MW | *Net Awarded PTP Options*⎯Net awarded PTP Options with the source *j* and sink *k* for the hour *h* and month *m* owned by all CRR Account Holders represented by the Counter-Party as CRR Owner of record at ERCOT for remaining Operating Days in the current operating month, and Prompt Month. |
| *j* | none | A source Settlement Point. |
| *k* | none | A sink Settlement Point. |
| *m* | none | An operating month. |
| *ctou* | none | CRR Time Of Use block. |
| *h* | none | An Operating Hour. |
| *a* | none | All CRR Account Holders represented by the Counter-Party. |
| *ci99* | none | 99th percentile confidence interval. |