

Item 5: Periodic Report on Credit Work Group Activity

Donald Meek Chair, Credit Work Group

Finance & Audit Committee Meeting

ERCOT Public August 7, 2017

Credit Work Group Update – Reviewed NPRRs

- The following NPRR was reviewed with Potential Credit Impact:
 - NPRR 833 Modify PTP Obligation Bid Clearing Change
 - Current protocol language allows in certain circumstances for PTP obligations to clear at a price above the maximum bid price.
 - ERCOT credit requirements for CRR auctions are calculated based upon the maximum bid prices and thus do not adequately consider conditions which result in award prices exceeding maximum bid prices.
 - NPRR827 partially addressed the issue of clearing prices exceeding maximum bid prices (with a \$0.25/MWh 'buffer' for operational issues) and better aligned the CRR auction process with ERCOT credit practices and was approved by the ERCOT Board on at the June 2017 meeting.
 - NPRR 833 further reduces the 'buffer' to \$0.01 better aligning ERCOT credit requirements and CRR award obligations on a permanent basis replacing NPRR 827 which was intended to be a short-term solution.



Credit Work Group Update – Reviewed NPRRs

• Other NPRRs Reviewed by CWG without Potential Credit Impact:

- NPRR768 Revisions to Real-Time On-Line Reliability Deployment Price Adder Categories
- NPRR821 Elimination of the CRR Deration Process
- Implemented Change Requests:
 - NPRR 741 Clarifications to TPE and EAL Credit Exposure Calculations
 - Implemented only language clarifications part
 - Change for removal of "abs" from MCE formula is not yet implemented
 - NPRR 773 Broadening Scope of Acceptable Letter of Credit Issuers
 - NPRR 791 Clarifications to IEL, MCE, and Aggregate Amount Owed by Breaching Party
 - NPRR 803 Remove Grey-boxed Language from NPRR 439, Updating a Counter-Party's Credit Limit for Current Day DAM
 - NPRR 728 Removal of Language Related to NPRR484, Revisions to Congestion Revenue Rights Credit Calculations and Payments, and NPRR554, Clarification of Future Credit Exposure Calculation



Credit Work Group Update – Reviewed NPRRs

- Implemented Change Requests (cont.):
 - NPRR 673 Correction to Estimated Aggregate Liability (EAL) for a QSE that **Represents Neither Load nor Generation**
 - NPRR 671 Incorporation of DAM Credit Parameters into Protocols
 - NPRR 670 Clarification of Portfolio-Weighted Auction Clearing Price (PWACP)
 - NPRR 612 Reduction of Cure Period Subsequent to Event of Default
 - SCR 778 Credit Exposure Calculations for NOIE Options Linked to RTM PTP **Obligations**
 - NPRR 559 Revisions to MCE Calculation
 - NPRR 597 Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity
 - NPRR 601 Inclusion of Incremental Exposure in Mass Transitions to Counter-Parties that are Registered as QSEs and LSEs and Provide POLR Service
 - NPRR 639 Correction to Minimum Current Exposure
 - NPRR 690 Incorporation of Creditworthiness Standards in Protocols
 - NPRR 692 Removal of MIS Posting Requirement of DAM Credit Parameters

Item 5

Credit Work Group Update – CMM Refresh

- Refresh of the Credit Monitoring and Management System (CMM) incorporating recently approved NPRRs is in the planning stage and targeted for Phase 1 implementation in Q2 2018.
 - The CMM Refresh is currently being proposed in three phases:
 - **Phase 1** is in Execution and will deliver the CMM technical refresh along with the majority of the Credit-related NPRRs (NPRR800, NPRR760, NPRR648, NPRR683, NPRR743, NPRR660, NPRR519, NPRR755, NPRR620, and NPRR741).
 - **Phase 2** which continues in Planning, will deliver Financial Transfer functionality and additional Credit/Treasury efficiencies (NPRR702).
 - **Phase 3** will deliver any remaining low-priority scope (NPRR484 1B). The go-live date for this phase will be addressed following completion of Planning for Phase 2.
 - NPRR 800 Revisions to Credit Exposure Calculations to Use Electricity Future Market Prices is anticipated to be included in Phase 1.
 - Seasonal Adjustment Factor (SAF) percentages may need to be calculated for 2018 on a contingency basis if the CMM refresh is delayed.



Counter-Party Credit Exposure – May / June 2017

 Profile data for Counter-Party credit exposure has been updated to reflect average values for May and June 2017.

| Rating Group | CRR Only | Gen Only | Load Only | Load and Gen | Trader | Total CPs | Percent CPs |
|----------------|----------|----------|-----------|--------------|--------|-----------|-------------|
| AAA | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| AA- to AA+ | 5 | 0 | 0 | 5 | 0 | 10 | 4.9% |
| A- to A+ | 2 | 1 | 4 | 6 | 4 | 17 | 8.3% |
| BBB- to BBB+ | 2 | 5 | 7 | 9 | 5 | 28 | 13.7% |
| BB- to BB+ | 0 | 1 | 2 | 0 | 1 | 4 | 2.0% |
| B- to B+ | 0 | 3 | 1 | 4 | 3 | 11 | 5.4% |
| CCC+ and below | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Not Rated | 11 | 25 | 22 | 7 | 69 | 134 | 65.7% |
| Total CPs | 20 | 35 | 36 | 31 | 82 | 204 | 100.0% |
| Percent CPs | 9.8% | 17.2% | 17.6% | 15.2% | 40.2% | 100.0% | |



Counter-Party Credit Exposure – May / June 2017

Distribution of TPE by Rating and Category

| Rating Group | CRR Only | Gen Only | Load Only | Load and Gen | Trader | Total TPE | Percent TPE |
|----------------|------------|------------|------------|--------------|-------------|-------------|-------------|
| ΑΑΑ | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| AA- to AA+ | 43,843 | 0 | 0 | 6,920,097 | 0 | 6,963,939 | 1.9% |
| A- to A+ | 0 | 739,032 | 5,433,901 | 35,645,228 | 453,701 | 42,271,862 | 11.6% |
| BBB- to BBB+ | 99,774 | 1,991,657 | 4,681,232 | 49,617,211 | 16,783,043 | 73,172,918 | 20.0% |
| BB- to BB+ | 0 | 1,382,256 | 6,647,516 | 0 | 6,382,097 | 14,411,868 | 3.9% |
| B- to B+ | 0 | 8,150,532 | 0 | 46,002,538 | 42,726,672 | 96,879,742 | 26.5% |
| CCC+ and below | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Not Rated | 13,272,246 | 29,836,192 | 7,747,540 | 27,387,675 | 53,104,583 | 131,348,236 | 36.0% |
| Total TPE | 13,415,862 | 42,099,669 | 24,510,188 | 165,572,749 | 119,450,097 | 365,048,566 | 100.0% |
| Percent TPE | 3.7% | 11.5% | 6.7% | 45.4% | 32.7% | 100.0% | |

| | | | | | | Excess | Percent Exces |
|----------------|------------|-------------|-------------|--------------|-------------|---------------|---------------|
| Rating Group | CRR Only | Gen Only | Load Only | Load and Gen | Trader | Collateral | Collateral |
| AAA | 0 | 0 | 0 | 0 | 0 | 0 | 0.09 |
| AA- to AA+ | 3,441,266 | 0 | 0 | 25,666,884 | 0 | 29,108,150 | 1.99 |
| A- to A+ | 301,804 | 21,638,017 | 56,282,319 | 192,014,261 | 23,074,237 | 293,310,638 | 18.79 |
| BBB- to BBB+ | 19,662,521 | 11,594,865 | 67,718,782 | 285,044,859 | 91,047,199 | 475,068,227 | 30.39 |
| BB- to BB+ | 0 | 11,173,231 | 3,827,494 | 0 | 28,160,682 | 43,161,407 | 2.8 |
| B- to B+ | 0 | 45,005,169 | 390,473 | 139,472,928 | 33,782,826 | 218,651,396 | 14.09 |
| CCC+ and below | 0 | 0 | 0 | 0 | 0 | 0 | 0.09 |
| Not Rated | 23,746,374 | 35,395,825 | 15,751,157 | 219,876,789 | 212,794,621 | 507,564,766 | 32.49 |
| Total Excess | | | | | | | |
| Collateral | 47,151,966 | 124,807,107 | 143,970,225 | 862,075,720 | 388,859,566 | 1,566,864,583 | 100.09 |
| Percent Excess | | | | | | | |
| Collateral | 3.0% | 8.0% | 9.2% | 55.0% | 24.8% | 100.0% | |

Item 5 ERCOT Public

Counter-Party Credit Exposure – May / June 2017 Average Excess Collateral Distribution for the Bottom Quintile of Market Participants

| | | | | | | | Percent | |
|-------------------------|----------|----------|-----------|--------------|---------|-----------------------|------------|-------------|
| | | | | | | Total Quintile | Quintile | Percent |
| | | | | | | Excess | Excess | Total Exces |
| Rating Group | CRR Only | Gen Only | Load Only | Load and Gen | Trader | Collateral | Collateral | Collateral |
| AAA | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | 0.0% |
| AA- to AA+ | 22,515 | 0 | 0 | 0 | 0 | 22,515 | 1.4% | 0.09 |
| A- to A+ | 111,550 | 0 | 0 | 0 | 6,424 | 117,974 | 7.4% | 0.09 |
| BBB- to BBB+ | 0 | 3,404 | 0 | 0 | 0 | 3,404 | 0.2% | 0.09 |
| BB- to BB+ | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | 0.09 |
| B- to B+ | 0 | 88,263 | 0 | 0 | 99,662 | 187,925 | 11.8% | 0.09 |
| CCC+ and below | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% | 0.09 |
| Not Rated | 147,495 | 190,911 | 494,163 | 59,309 | 365,898 | 1,257,777 | 79.1% | 0.19 |
| Total Quintile Excess | | | | | | | | |
| Collateral | 281,561 | 282,578 | 494,163 | 59,309 | 471,983 | 1,589,595 | 100.0% | 0.19 |
| Percent Quintile Excess | | | | | | | | |
| Collateral | 17.7% | 17.8% | 31.1% | 3.7% | 29.7% | 100.0% | | |
| Percent Total Excess | | | | | | | | |
| Collateral | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | | |

Item 5 **ERCOT** Public

Counter-Party Credit Changes May / June 2017

| Summary of dist | ribution by | Category | | | | | | | |
|-----------------|-----------------|----------|--------|--------------------------|---------|--------|---|---------|--------|
| Category | CP Distribution | | | Average TPE Distribution | | | Average Excess Collateral Distribution | | |
| | Mar-Apr | May-Jun | Change | Mar-Apr | May-Jun | Change | Mar-Apr | May-Jun | Change |
| CRR Only | 9.30% | 9.80% | 0.50% | 2.60% | 3.68% | 1.08% | 2.40% | 3.01% | 0.61% |
| Gen Only | 17.10% | 17.16% | 0.06% | 13.60% | 11.53% | -2.07% | 6.40% | 7.97% | 1.57% |
| Load Only | 18.00% | 17.65% | -0.35% | 5.70% | 6.71% | 1.01% | 10.30% | 9.19% | -1.11% |
| Load and Gen | 15.10% | 15.20% | 0.10% | 39.80% | 45.36% | 5.56% | 60.60% | 55.02% | -5.58% |
| Trader | 40.50% | 40.20% | -0.30% | 38.30% | 32.72% | -5.58% | 20.30% | 24.82% | 4.52% |
| | | | | | | | | | |

| Summary of dist | | | | | | | | | | |
|-----------------|-----------------|---------|--------|---------|-------------|--------|---|---------|--------|--|
| Rating Group | CP Distribution | | | Average | TPE Distrib | ution | Average Excess Collateral Distribution | | | |
| | Mar-Apr | May-Jun | Change | Mar-Apr | May-Jun | Change | Mar-Apr | May-Jun | Change | |
| AAA | 0.0% | 0.0% | 0.00% | 0.0% | 0.0% | 0.00% | 0.0% | 0.0% | 0.00% | |
| AA- to AA+ | 4.9% | 4.9% | 0.02% | 1.7% | 1.9% | 0.26% | 1.9% | 1.9% | -0.06% | |
| A- to A+ | 8.8% | 8.3% | -0.45% | 7.8% | 11.6% | 3.73% | 21.4% | 18.7% | -2.71% | |
| BBB- to BBB+ | 13.2% | 13.7% | 0.55% | 15.2% | 20.0% | 4.88% | 30.3% | 30.3% | 0.05% | |
| BB- to BB+ | 2.0% | 2.0% | 0.01% | 4.0% | 3.9% | -0.05% | 3.0% | 2.8% | -0.26% | |
| B- to B+ | 5.9% | 5.4% | -0.46% | 36.5% | 26.5% | -9.92% | 10.9% | 14.0% | 3.05% | |
| CCC+ and below | 0.0% | 0.0% | 0.00% | 0.0% | 0.0% | 0.00% | 0.0% | 0.0% | 0.00% | |
| Not Rated | 65.4% | 65.7% | 0.32% | 34.9% | 36.0% | 1.10% | 32.5% | 32.4% | -0.08% | |
| | | | | | | | | | | |

ercot

Credit Work Group Update - Other Topics

- One of the CWG goals is to "pursue a calculator to allow market participants to calculate their credit requirements for CRR auctions" on an ad hoc basis prior to submitting CRR bids.
- ERCOT has identified an issue with such a calculator in that two path specific adders used for CRR Obligation purchase bids, ACi99 and ACP, are calculated manually for 'non-baseload' paths and are available for 'baseload paths' only 5 business days before a bid window closes and not available on an ad hoc basis.
- NPRR 484 Phase B (2019 timeframe) will largely address automating the calculation of ACi99 and ACP path specific adders.
- ERCOT has proposed several 'work around' approaches with more limited functionality which may be employed prior to 2019 which are currently under discussion by CWG.





