

Item 5: Periodic Report on Credit Work Group Activity

Donald Meek Chair, Credit Work Group

Finance & Audit Committee Meeting

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Credit Work Group Update – Reviewed NPRRs

- The Following NPRR was Reviewed by CWG with Potential Credit Impact
 - NPRR803, Remove Grey-boxed Language from NPRR439, Updating a Counter-Party's Available Credit Limit for Current Day DAM
 - NPRR439 (approved by the Board in May 2012) contained a provision to allow for same-day update of DAM credit limits to reflect new collateral postings (at ERCOT's operational discretion).
 - In preparing to implement a technology refresh of the ERCOT CMM, an assessment was made of the cost of implementing this component in the range of \$125k-\$135k as well as operational issues in ERCOT receiving collateral postings very early in an operational day to be effective.
 - A Market Participant has only asked to utilize such a process once since Nodal Go-Live and there • was a consensus that the benefit of such a facility does not justify the implementation costs.
 - NPRR803 was unanimously endorsed by the Credit Working Group. •
- Other NPRRs Reviewed by CWG without Potential Credit Impact
 - NPRR792, Changing Special Protection System (SPS) to Remedial Action Scheme (RAS)
 - NPRR794, Relocation of Unregistered DG Reporting Requirements
 - NPRR805, Clarification for Multi-Month CRR Auction Offers
 - NPRR806, Clarification for Designation of Capacity or Refund PCRRs

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NPRR800 Forward Pricing Credit Methodology

- NPRR800 Prepared by ERCOT and endorsed by CWG to incorporate forward pricing credit methodology:
 - Market Adjustment Factor (MAF) replaces Seasonal Adjustment Factor (SAF).
 - Adds Real-Time Forward Adjustment Factor (RFAF) in the Minimum Current Exposure (MCE) and Estimate Aggregate Liability (EAL) calculations.
 - Adds Day-Ahead Forward Adjustment Factor (DFAF) in the Estimate Aggregate Liability (EAL) calculation.
 - Adjustment factors derived from 21-day North Hub ICE Price Curves.
 - A new report–Forward Adjustment Factors Summary Report–will add to ERCOT MIS for daily posting.
- NPRR800 referred by PRS to CWG in September 2016
 - ERCOT provided interested Market Participants with approximately 3¹/₂ years of back-cast Counter-Party-specific data for analysis.
 - CWG reviewed NPRR800 and Counter-Party-specific results in October.
 - There was a generally finding among Market Participants that the back-cast data supported the intent of the NPRR to better align collateral requirements.

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NPRR800 Forward Pricing Credit Methodology

- CWG Endorsed NPRR800 in October 2016
 - Specific request by CWG to review the Operational Parameters within NPRR800 within six months of implementation for appropriateness.
 - Two 'no' votes (one from the Cooperative and one from the Independent Generator Market Segment).
- ERCOT Provided comments in November 2016 for a provision in the possible event of the unavailability of forward price curves
 - Allows for a revision of credit parameters to not include a forward pricing adjustment in the event of unavailability of third-party price curves.
 - CWG endorsed the ERCOT comments with one 'no' vote (from the Independent Generator Market Segment).
- NPRR800 was discussed at WMS in November 2016 upon referral of the MCWG and is tabled for further review at PRS.



NPRR773, Broadening Scope of Acceptable Letter of Credit Issuers, and Standard Forms

- Review of Market Participant Credit-Related Binding Documents:
 - ERCOT has proposed changes to the Market Participant Letter of Credit standard form to incorporate changes required by NPRR773.
 - ERCOT Legal has requested outside counsel to review the following Credit-Related standard forms:
 - Market Participant Letter of Credit
 - Surety Bond
 - Foreign Market Participant and Third Party Guarantee Agreement
 - Market Participant and Third Party Guarantee Agreement
- CWG voted to unanimously approve the proposed changes at the November 2016 CWG Meeting after ERCOT Legal agreed to accept a number of comments offered by various Market Participants in addition to those provided by outside counsel.

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Counter-Party Credit Exposure Profile

- At its October 10, 2016 meeting, F&A requested that ERCOT regularly provide the ERCOT Counter-Party Credit Exposure Profile to the Committee.
- Profile data has been updated to reflect average values for September and October 2016.
- It is anticipated that Credit Exposure Profile data will be provided going forward on a regular bi-monthly basis.

Active Counter-Parties							
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+	4	0	0	4	0	8	4.1%
A- to A+	2	1	3	6	5	17	8.6%
BBB- to BBB+	3	4	8	10	4	29	14.7%
BB- to BB+	0	1	2	0	0	3	1.5%
B- to B+	0	1	1	3	4	9	4.6%
CCC+ and below	0	0	0	0	0	0	0.0%
Not Rated	9	27	21	8	66	131	66.5%
Total CPs	18	34	35	31	79	197	100.0%
Percent CPs	9.1%	17.3%	17.8%	15.7%	40.1%	100.0%	

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Counter-Party Credit Exposure Profile

Distribution of Total Potential Exposure by Rating and Category							
Rating Group	CRR Only	Gen Only	Load Only	Load and Gen	Trader	Total TPE	Percent TPE
AAA	0	0	0	0	0	0	0.0%
AA- to AA+	187,484	0	0	8,349,277	0	8,536,761	2.8%
A- to A+	0	166,583	1,117,886	46,717,903	2,733,281	50,735,652	16.5%
BBB- to BBB+	216,294	1,132,002	4,414,758	36,094,072	12,528,415	54,385,540	17.7%
BB- to BB+	0	96,407	3,779,377	0	0	3,875,785	1.3%
B- to B+	0	1,726,665	0	26,845,715	17,726,202	46,298,582	15.0%
CCC+ and below	0	0	0	0	0	0	0.0%
Not Rated	675,545	19,726,289	5,960,435	54,731,638	62,956,819	144,050,726	46.8%
Total TPE	1,079,323	22,847,946	15,272,456	172,738,604	95,944,717	307,883,046	100.0%
Percent TPE	0.4%	7.4%	5.0%	56.1%	31.2%	100.0%	

						Excess	Percent Excess
Rating Group	CRR Only	Gen Only	Load Only	Load and Gen	Trader	Collateral	Collateral
AAA	0	0	0	0	0	0	0.0%
AA- to AA+	2,682,246	0	0	2,666,883	0	5,349,128	0.4%
A- to A+	225,226	3,333,417	1,208,989	173,898,608	78,793,560	257,459,799	17.5%
BBB- to BBB+	17,395,257	4,371,421	96,262,932	410,893,878	103,138,952	632,062,439	43.1%
BB- to BB+	0	12,459,511	14,197,263	0	0	26,656,774	1.8%
B- to B+	0	18,273,336	390,473	64,289,588	15,144,656	98,098,053	6.7%
CCC+ and below	0	0	0	0	0	0	0.0%
Not Rated	2,882,649	39,990,871	20,838,677	220,472,354	164,147,529	448,332,079	30.5%
Total Excess							
Collateral	23,185,377	78,428,556	132,898,334	872,221,310	361,224,696	1,467,958,273	100.0%
Percent Excess							
Collateral	1.6%	5.3%	9.1%	59.4%	24.6%	100.0%	

Market Continuity Workshop - Credit Issues

- Workshop held on May 2nd to discuss topics related to recovery of ERCOT activities in the event of a significant market disruption.
- Discussion points from August 2016 CWG / MCWG Meeting:
 - A market outage would be treated as a force majeure event
 - ERCOT would seek emergency funding to pay generators
 - Credit requirements for DAM would be suspended for some period of time
 - Any Mass Transitions that might follow from REP defaults would be suspended
 - Excess cash would be used to cover QSE invoices first
 - Collateral calls would be suspended for some period of time
 - DAM may be restricted to load and Generation for some period of time
- TAC is in the process of further refining the scope of the review.
- CWG/MCWG has postponed further discussion until directed by TAC.



Credit Work Group Update - Other Topics

- Proposed refresh of the Credit Monitoring and Management System (CMM) incorporating recently approved NPRRs in the planning stage and targeted for implementation in Q3/Q4 2017.
 - It would be desirable to include NPRR800 in the CMM refresh if it completes the Stakeholder Process in a timely manner.
- ERCOT Credit Management training sessions have been held in 2016 in Austin, Dallas/Fort Worth, and Houston, with the next session scheduled in Austin on April 6th, 2017.
- Discussion of Seasonal Adjustment Factor for 2017 will occur in January 2017 with recommendations provided by ERCOT.
- 2017 CWG Goals and Objectives will also be discussed at the January 2017 meeting as well as a review of the CWG Charter.

2016 Credit Working Group Goals as Reviewed by F&A and Adopted by CWG in March 2016

- Pursue seasonality-based approach (Forward Curve-based replacement for NPRR638) in collateral requirements
- Explore using Counter-Party specific ratings for collateral requirements
- Clarify the market's risk tolerance/appetite level
- Evaluate potential market risk under current credit rules and rules in flight
- Examine a framework for reviewing rules in flight
- Potential usage of letter of credit and credit insurance



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Implemented Credit Related Revision/Change Requests

- NPRR673 Correction to Estimated Aggregate Liability (EAL) for a QSE that • **Represents Neither Load nor Generation**
- NPRR671 Incorporation of DAM Credit Parameters into Protocols •
- NPRR670 Clarification of Portfolio-Weighted Auction Clearing Price (PWACP) •
- NPRR612 Reduction of Cure Period Subsequent to Event of Default •
- SCR778 Credit Exposure Calculations for NOIE Options Linked to RTM PTP • **Obligations**
- NPRR559 Revisions to MCE Calculation •
- NPRR597 Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity •
- NPRR601 Inclusion of Incremental Exposure in Mass Transitions to Counter-• Parties that are Registered as QSEs and LSEs and Provide POLR Service
- NPRR639 Correction to Minimum Current Exposure •
- NPRR690 Incorporation of Creditworthiness Standards in Protocols •
- NPRR692 Removal of MIS Posting Requirement of DAM Credit Parameters •
- NPRR728 Removal of Language Related to NPRR484, Revisions to Congestion • Revenue Rights Credit Calculations and Payments, and NPRR554, Clarification of Future Credit Exposure Calculation

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Approved Credit Related Revision / Change Requests

Revision / Change Request	Project Status	Target Release Date*
NPRR 620 – Collateral Requirements for Counter-Parties with No Load or Generation	Р	TBD
NPRR 683 – Revision to Available Credit Limit Calculation	Р	TBD
NPRR 484 – Phase 1b	Р	твр
NPRR 519 – Exemption of ERS-Only QSEs from Collateral and Capitalization Requirements	Ρ	TBD
NPRR 439 – Updated to Available Credit Limit for DAM	н	твр
NPRR 702 – Flexible Accounts, Payment of invoices, and Disposition of Interest on Cash Collateral	Ρ	TBD
NPRR 743 – Revision to MCE to have a Floor for Load Exposure	Ρ	твр
NPRR 741 – Clarifications to TPE and EAL Credit Exposure Calculations	Ρ	TBD
NPRR 755 – Data Agent Only QSE Registration	NS	TBD
NPRR 760 – Calculation of Exposure Variables For Days With No Activity	NS	TBD

* Target Release Date is not firmed up until the project moves to Execution (E) phase

Project Status Codes: NS = Not Started, I = Initiation, P = Planning, E = Execution, H = On Hold TBD = To Be Determined

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