



Item 5: Periodic Report on Credit Work Group Activity

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Chair, Credit Work Group

Finance and Audit Committee Meeting

ERCOT Public

December 11, 2017

Credit Work Group Update – Reviewed NPRRs

- **NPRRs Reviewed Without Credit Impact**

- NPRR 819 – Resettlement Clean-Ups
- NPRR 839 – Clarification of ERCOT Forwarding of Consumption and Other Data
- NPRR 841 – Real-Time Adjustments to Day-Ahead Make Whole Payments due to Ancillary Services Infeasibility Charges
- NPRR 842 – Study Area Load Information
- NPRR 843 – Short-Term System Adequacy and AS Offer Disclosure Reports Additions
- NPRR 846 – Allow Previously Committed ERS Resources to Participate in MRA Agreements and Other ERS Items

- **NPRRs Tabled for Further Discussion**

- NPRR 850 – Market Suspension and Restart
 - Tabled for discussion until the December 2017 CWG/MCWG meeting in order to incorporate anticipated comments expected from simultaneous review by other Working Groups

Credit Work Group Update – Reviewed NPRRs

- **NPRRs Reviewed With Credit Impact**

- NPRR 834 - Clarifications for Repossessions of CRRs by ERCOT
 - The NPRR clarifies the mechanism ERCOT may employ to repossess CRRs during certain pre-defined events, the structure of any subsequent one-time auction to reoffer such CRRs to the market, and the content of reports that are provided to the market in regards to such events.
 - Of note, NPRR 834 establishes that ERCOT will only accept positive bid prices for repossessed CRRs offered by auction and any CRRs without a positive auction bid amount will be voided as well as any CRRs that settle in the same calendar month as the repossession.
 - CWG voted unanimously (IOU and Consumer Segments were absent) to provide comments and suggest that the NPRR is positive from a credit perspective by clarifying ERCOT's CRR repossession process.

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 Q1 2018.
- **Phase 1** is in Execution and includes delivery of the CMM technical refresh along with the majority of the Credit-related NPRRs.
 - **Phase 1A** will deliver NPRRs 648, 683, 743, 760 and 800 via the existing CMM application. The estimated completion date is targeted for Q1 2018.
 - **Phase 1B** will continue to focus on delivery of the technical refresh along with delivery of the full scope of NPRRs in Phase 1. The team continues to develop a formal go-live date estimate.
- **Phase 2** will deliver Financial Transfer functionality and additional Credit/Treasury efficiencies (NPRR 702). Team continues to document Requirements and User Interface designs and workflows. The go-live date will be set once re-plan efforts for Phase 1 are complete.
- **Phase 3** will deliver any remaining low-priority scope (NPRR 484(1B)). The go-live date for this phase will be addressed following completion of Planning for Phase 2.

CRR Auction Credit Requirements Calculator

- 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.
- Vistra Energy presented a draft System Change Request (SCR) for CWG to consider at the November 2017 CWG Meeting
- Market Participates were asked to provide comments on the draft CRR Credit Requirements Calculator SCR by early December.
- Further discussion of the proposed SCR will take place at the December CWG meeting with a possible SCR filed by the CWG in early 2018 incorporating various Market Participant comments.

Counter-Party Credit Exposure – Sep./Oct. 2017

Changes from Jul./Aug. 2017 to Sep./Oct 2017

- Number of active Counter-Parties increased from 213 to 216.
- Market-wide TPE slightly increased from 360 million to 362 million.
- Excess Collateral decreased from 1,599 million to 1,573 million.
- TPE of Load and Generation category as a percentage of Total TPE decreased by 10% while it increased for CRR only category by 6.27%.
- Relatively higher Real Time prices on October 1st and October 9th.
- Increase in CRR-related exposure due to Hurricane Harvey.

Counter-Party Credit Exposure – Sep./Oct. 2017

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

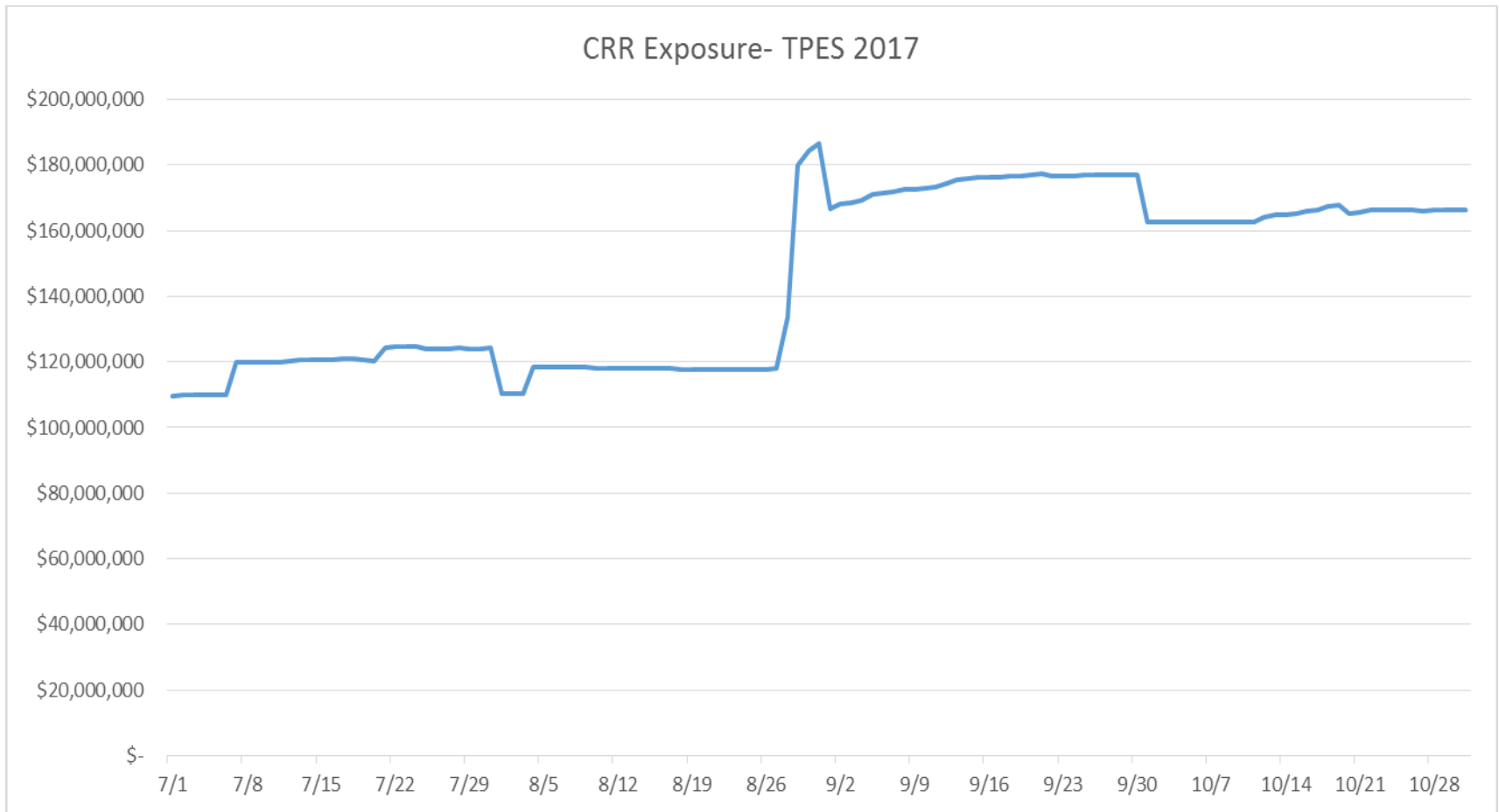
Number of CPs that are Active by Rating and Category

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	4.6%
A- to A+	3	1	3	7	4	18	8.3%
BBB- to BBB+	2	5	6	9	4	26	12.0%
BB- to BB+	0	1	2	0	1	4	1.9%
B- to B+	0	2	1	4	4	11	5.1%
CCC+ and below	0	0	0	0	0	0	0.0%
Not Rated	13	26	26	7	75	147	68.1%
Total CPs	23	35	38	32	88	216	100.0%
Percent CPs	10.6%	16.2%	17.6%	14.8%	40.7%	100.0%	

Counter-Party Credit Exposure – Sep./Oct. 2017



Counter-Party Credit Exposure – Sep./Oct. 2017



Counter-Party Credit Exposure – Sep./Oct. 2017

Distribution of TPE by Rating and Category

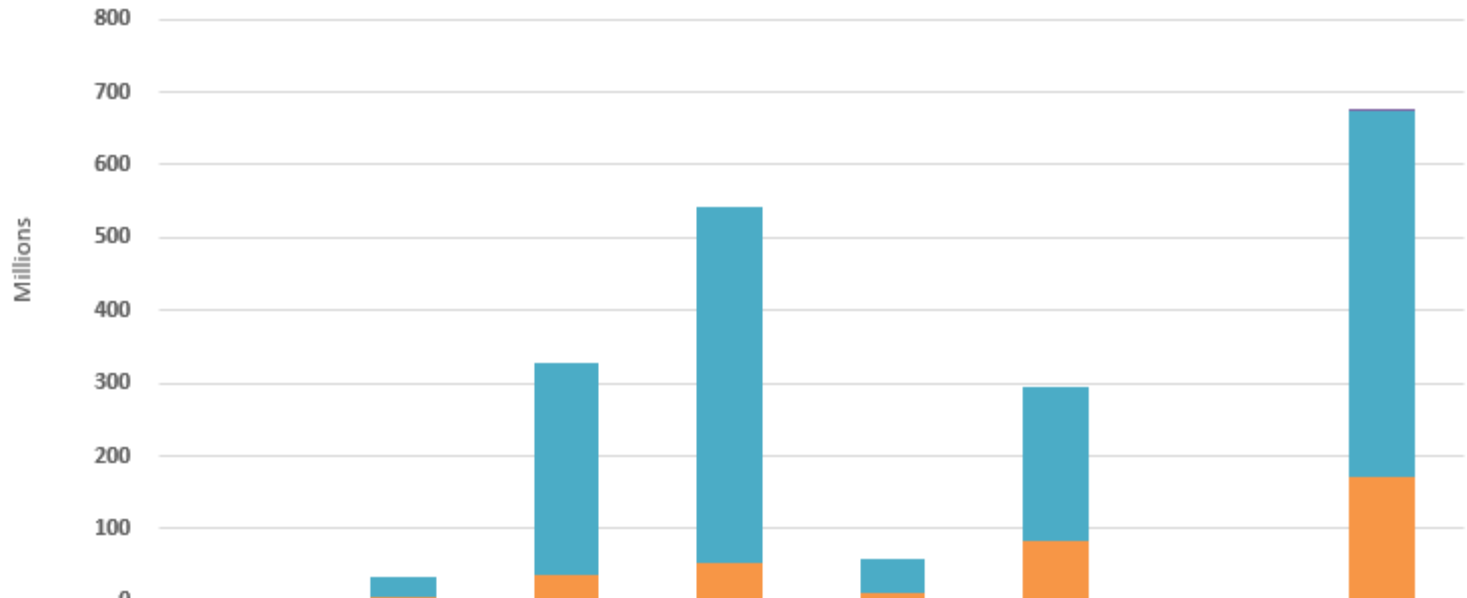
Rating Group	CRR Only	Gen Only	Load Only	Load and Gen	Trader	Total TPE	Percent TPE
AAA	0	0	0	0	0	0	0.0%
AA- to AA+	52,753	0	0	6,897,308	0	6,950,061	1.9%
A- to A+	0	1,748,082	2,398,619	32,306,395	1,290,407	37,743,503	10.4%
BBB- to BBB+	0	3,633,675	4,789,997	30,498,560	13,473,071	52,395,303	14.5%
BB- to BB+	0	578,312	5,826,836	0	4,853,724	11,258,872	3.1%
B- to B+	0	1,191,708	0	43,640,652	37,707,797	82,540,157	22.8%
CCC+ and below	0	0	0	0	0	0	0.0%
Not Rated	40,281,439	16,185,904	18,765,769	23,615,935	72,437,836	171,286,883	47.3%
Total TPE	40,334,191	23,337,681	31,781,221	136,958,850	129,762,836	362,174,780	100.0%
Percent TPE	11.1%	6.4%	8.8%	37.8%	35.8%	100.0%	

Distribution of Excess Collateral by Rating and Category

Rating Group	CRR Only	Gen Only	Load Only	Load and Gen	Trader	Excess Collateral	Percent Excess Collateral
AAA	0	0	0	0	0	0	0.0%
AA- to AA+	4,462,264	0	0	23,712,101	0	28,174,365	1.8%
A- to A+	14,468,108	33,251,918	56,863,677	164,648,220	22,237,531	291,469,453	18.5%
BBB- to BBB+	7,904,098	10,609,847	70,110,014	317,899,559	82,553,893	489,077,411	31.1%
BB- to BB+	0	11,977,561	5,148,173	0	30,686,186	47,811,919	3.0%
B- to B+	0	38,103,336	390,473	147,450,135	27,080,332	213,024,277	13.5%
CCC+ and below	0	0	0	0	0	0	0.0%
Not Rated	26,792,148	51,611,036	19,237,519	221,714,612	184,673,999	504,029,315	32.0%
Total Excess Collateral	53,626,618	145,553,698	151,749,856	875,424,627	347,231,941	1,573,586,740	100.0%
Percent Excess Collateral	3.4%	9.2%	9.6%	55.6%	22.1%	100.0%	

Counter-Party Credit Exposure – Sep./Oct. 2017

Average TPE and Collateral Distribution by Rating Category

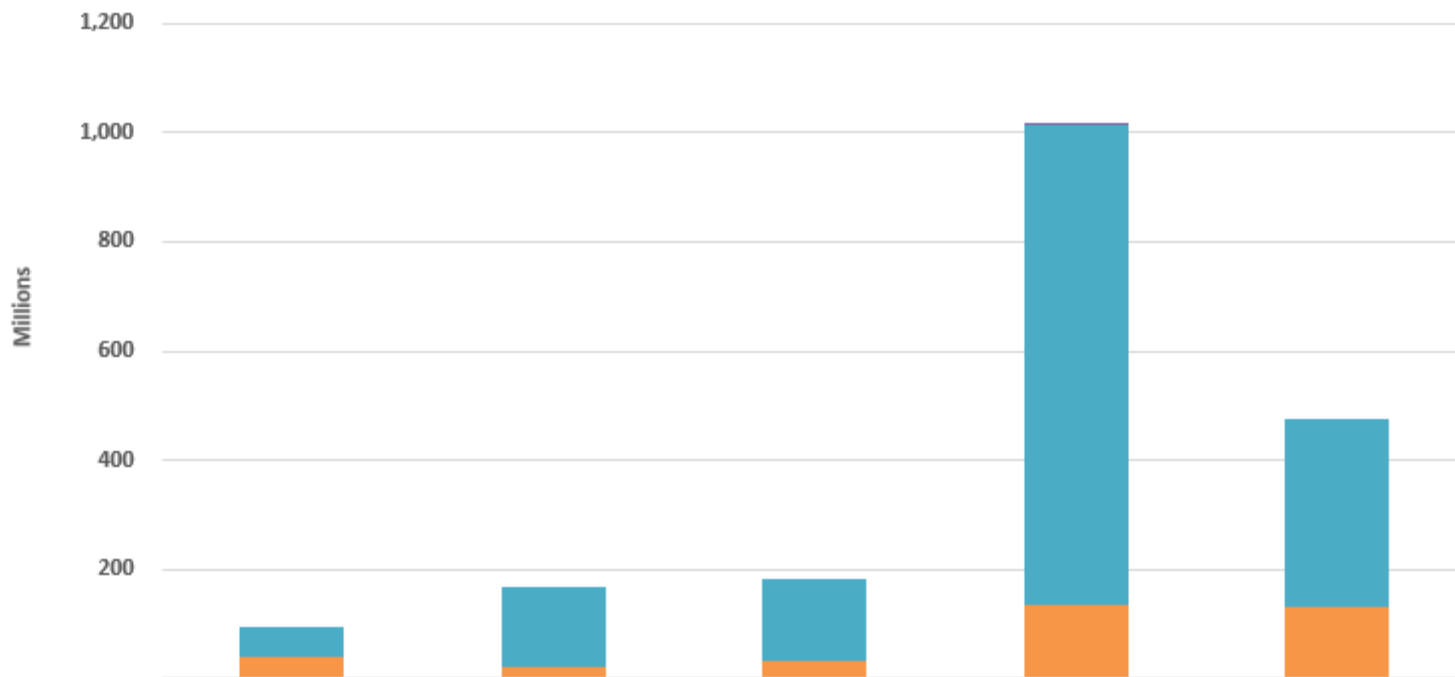


	AAA	AA- to AA+	A- to A+	BBB- to BBB+	BB- to BB+	B- to B+	CCC+ and below	Not Rated
Total CPs	0	10	18	26	4	11	0	147
Average Excess Collateral	0	28,174,365	291,469,453	489,077,411	47,811,919	213,024,277	0	504,029,315
Average TPE	0	6,950,061	37,743,503	52,395,303	11,258,872	82,540,157	0	171,286,883

■ Average TPE
 ■ Average Excess Collateral
 ■ Total CPs

Counter-Party Credit Exposure – Sep./Oct. 2017

Average TPE and Collateral Distribution by Market Segment



	CRR Only	Gen Only	Load Only	Load and Gen	Trader
Total CPs	23	35	38	32	88
Average Excess Collateral	53,626,618	145,553,698	151,749,856	875,424,627	347,231,941
Average TPE	40,334,191	23,337,681	31,781,221	136,958,850	129,762,836

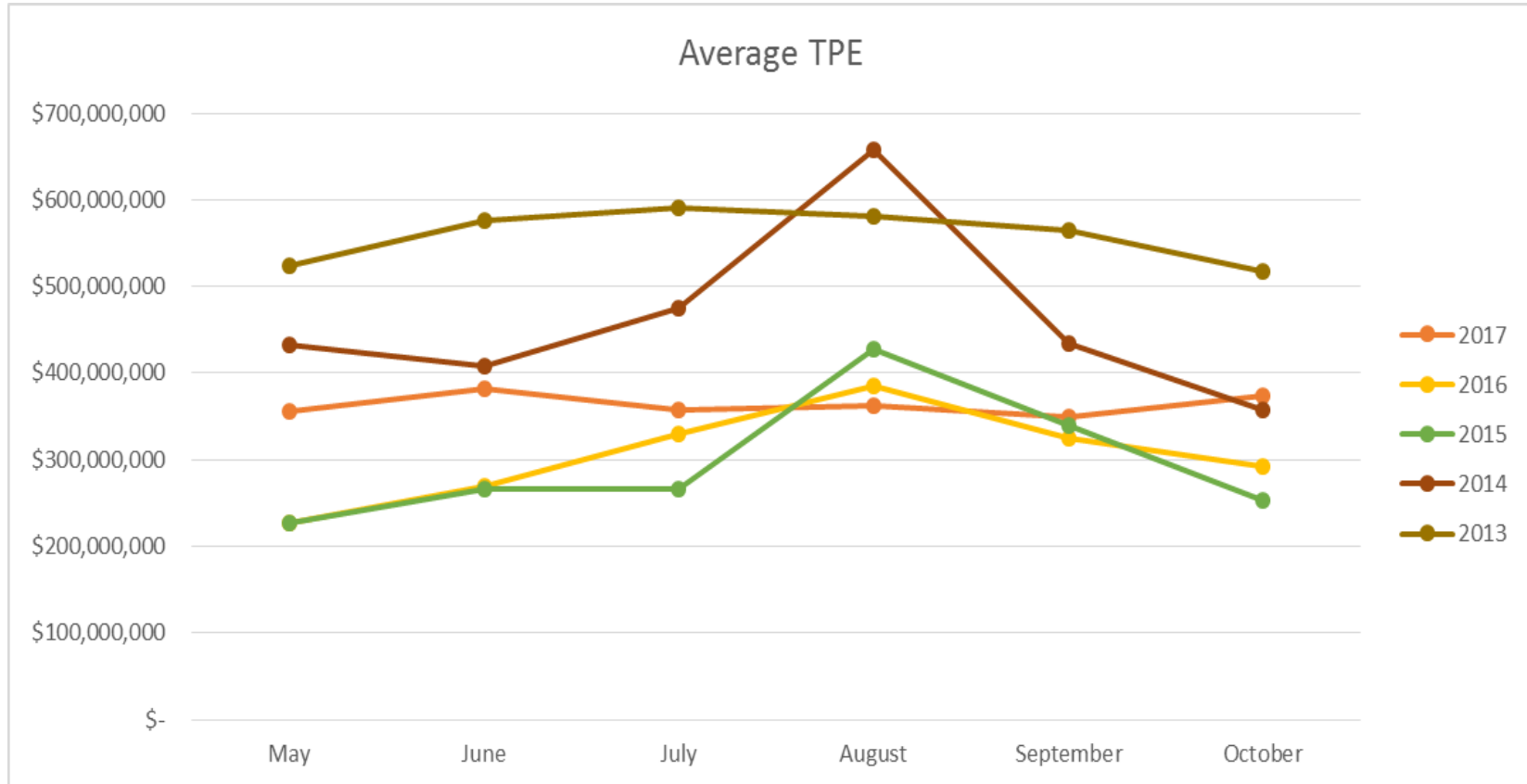
■ Average TPE
 ■ Average Excess Collateral
 ■ Total CPs

Counter-Party Credit Changes Sep./Oct. 2017

Summary of distribution by Category									
Category	CP Distribution			Average TPE Distribution			Average Excess Collateral Distribution		
	Jul-Aug	Sep-Oct	Change	Jul-Aug	Sep-Oct	Change	Jul-Aug	Sep-Oct	Change
CRR Only	9.86%	10.65%	0.79%	4.87%	11.14%	6.27%	3.36%	3.41%	0.05%
Gen Only	15.96%	16.20%	0.24%	9.14%	6.44%	-2.70%	8.55%	9.25%	0.70%
Load Only	18.31%	17.59%	-0.72%	6.32%	8.78%	2.46%	9.50%	9.64%	0.15%
Load and Gen	14.55%	14.8%	0.26%	48.01%	37.82%	-10.19%	55.33%	55.63%	0.31%
Trader	41.31%	40.7%	-0.57%	31.66%	35.83%	4.17%	23.27%	22.07%	-1.20%

Summary of distribution by Rating Group									
Rating Group	CP Distribution			Average TPE Distribution			Average Excess Collateral Distribution		
	Jul-Aug	Sep-Oct	Change	Jul-Aug	Sep-Oct	Change	Jul-Aug	Sep-Oct	Change
AAA	0.00%	0.0%	0.00%	0.00%	0.0%	0.00%	0.00%	0.0%	0.00%
AA- to AA+	4.69%	4.6%	-0.07%	3.05%	1.9%	-1.13%	1.60%	1.8%	0.19%
A- to A+	7.98%	8.3%	0.35%	10.54%	10.4%	-0.12%	19.21%	18.5%	-0.68%
BBB- to BBB+	12.68%	12.0%	-0.64%	21.91%	14.5%	-7.44%	32.35%	31.1%	-1.27%
BB- to BB+	1.88%	1.9%	-0.03%	4.01%	3.1%	-0.90%	2.77%	3.0%	0.27%
B- to B+	5.16%	5.1%	-0.07%	25.12%	22.8%	-2.33%	13.04%	13.5%	0.50%
CCC+ and below	0.00%	0.0%	0.00%	0.00%	0.0%	0.00%	0.00%	0.0%	0.00%
Not Rated	67.61%	68.1%	0.45%	35.37%	47.3%	11.92%	31.05%	32.0%	0.99%

Counter-Party Credit Exposure – Sep./Oct. 2017



Counter-Party Credit Exposure – Sep./Oct. 2017 Average TPE and Excess Collateral for the Bottom Quintile of Market Participants

Quintile Distribution of Average TPE by Rating and Category								
Rating Group	CRR Only	Gen Only	Load Only	Load and Gen	Trader	Quintile Average TPE	Percent Quintile Average TPE	Percent Total Average TPE
AAA	0	0	0	0	0	0	0.0%	0.00%
AA- to AA+	207	0	0	0	0	207	0.0%	0.00%
A- to A+	0	0	0	0	0	0	0.0%	0.00%
BBB- to BBB+	0	27	0	0	0	27	0.0%	0.00%
BB- to BB+	0	0	0	0	0	0	0.0%	0.00%
B- to B+	0	18,405	0	0	0	18,405	0.6%	0.01%
CCC+ and below	0	0	0	0	0	0	0.0%	0.00%
Not Rated	2,949	604,032	1,424,601	201,232	1,002,533	3,235,346	99.4%	0.89%
Quintile Average TPE	3,156	622,464	1,424,601	201,232	1,002,533	3,253,985	100.0%	0.90%
Percent Quintile Average TPE	0.1%	19.1%	43.8%	6.2%	30.8%	100.0%		
Percent Total Average TPE	0.00%	0.17%	0.39%	0.06%	0.28%	0.90%		

Quintile Distribution of Excess Collateral by Rating and Category								
Rating Group	CRR Only	Gen Only	Load Only	Load and Gen	Trader	Total Quintile Excess Collateral	Percent Quintile Excess Collateral	Percent Total Excess Collateral
AAA	0	0	0	0	0	0	0.0%	0.0%
AA- to AA+	22,993	0	0	0	0	22,993	1.0%	0.0%
A- to A+	111,550	0	0	0	6,424	117,974	5.4%	0.0%
BBB- to BBB+	150,000	3,400	0	0	0	153,400	7.0%	0.0%
BB- to BB+	0	0	0	0	0	0	0.0%	0.0%
B- to B+	0	96,311	0	0	62,121	158,432	7.2%	0.0%
CCC+ and below	0	0	0	0	0	0	0.0%	0.0%
Not Rated	123,158	181,659	728,968	58,788	648,781	1,741,353	79.4%	0.1%
Total Quintile Excess Collateral	407,702	281,370	728,968	58,788	717,325	2,194,152	100.0%	0.1%
Percent Quintile Excess Collateral	18.6%	12.8%	33.2%	2.7%	32.7%	100.0%		
Percent Total Excess Collateral	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%		



Review of 2017 Credit Working Group Goals

- Provide support to the ERCOT stakeholder process incorporating a forward price curve-based methodology (NPRR 800) in collateral requirement calculations
- Clarify the market's risk tolerance/appetite level and provide regular updates on credit exposure to the ERCOT Board
- Evaluate and quantify potential market risk under current credit rules and examine a framework for reviewing rules in flight
- Explore methodologies to incorporate Counter-Party specific ratings into ERCOT collateral requirement calculations
- Participate in TAC/WMS-lead discussions related to credit in the event of a market continuity business interruption
- Explore potential usage of letter of credit/credit insurance
- Pursue a calculator to allow market participants to calculate their requirements for CRR auctions

Questions?