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## **Item 4: Periodic Report on Credit Work Group Activity**

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Finance & Audit Committee Meeting  
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ERCOT Public

# Credit Work Group Update – Reviewed NPRRs

## **NPRR 728: Removal of Language related to NPRR484, Revisions to CRR Credit Calculations and Payments and NPRR 554, Clarification of Future Credit Exposure**

- Removal of grey-box language does not impact current credit calculations, NPRR 554 portion removes detailed reporting of Counterparty PTP Options and Obligations

## **Other NPRRs Reviewed by CWG**

- NPRR 633 Ancillary Service Insufficiency Actions
- NPRR 689 Settlement of Ancillary Service Assignment in Real-Time Operations
- NPRR 708 Clarifying ERCOT Actions During Energy Emergency Alerts
- NPRR 715 Clarification of Generator Modelling in the Market System
- NPRR 716 Corrections to Load and Participant Generation Data Requirements
- NPRR 717 Clarification of EPS Metering Exception for ERS Generation
- NPRR 718 Correct Requirement for Posting AML Data
- NPRR 721 Removal of Language Related to NPRR455, CRR Shift Factors Report
- NPRR 722 Removal of Language Related to NPRR181, FIP Definition Revision
- NPRR 723 Removal of grey-boxes from NPRR256, QSE Performance Standards
- NPRR 724 Removal of Language Related to NPRR493, Half-Hour RUC Clawback
- NPRR 726 Daily Network Operations Model PSS/E File Posting Modification
- NPRR 729 Clarification of Metering Requirements for Resources
- NPRR 731 Changes to Reporting Requirements for RUC Decommitment Payments
- NPRR 732 Alignment of Verifiable Cost Language within Protocols
- NPRR 733 Delete Expiration of Customer Load Protected Information Status

# Credit Work Group Update – NPRR 639

## NPRR 639 impact on MCE Credit Calculations, Draft NPRR

- NPRR 639 was approved by the Board on December 9, 2014 and provides a partial credit for Market Participants with ‘long’ bilateral transactions settled through ERCOT to reflect the risk reduction benefit of hedging. Prior to NPRR 639 no credit was provided for ‘long’ bilateral transactions, however ‘short’ bilateral transactions were required to be collateralized.
- The partial credit provides an uncapped MCE calculation offset for effectively 80% of the calculated value of their ‘long’ bilateral transaction positions.
- Certain Market Participants have effectively reduced their MCE Credit Requirements with ERCOT to near \$0 through entering into ‘long’ bilateral transactions of more than 125% of their projected load.
- There is concern that having no minimum credit requirement or ‘floor’ exposes ERCOT to risk in the case of a mass transition or a reliance on the ERCOT balancing market due to an inability to access future bilateral trades.
- ERCOT is drafting an NPRR to require a credit posting requirement ‘floor’ for MCE calculation purposes to reflect one 1-day of market activity.

# Credit Work Group Update – Capacity Forecast Model

## ERCOT Capacity Forecast Model Update

- ERCOT created a prototype or proof of concept Capacity Forecast Model which began operating in late February 2015. The model is designed to predict real time prices (50<sup>th</sup> and 90<sup>th</sup> percentiles) based upon 'Expected Reserves' calculated from 7 days to 1 day forward (e.g. on Sept. 1<sup>st</sup>, capacity forecast model runs are created for Sept. 2<sup>nd</sup> (1 day) to Sept. 8<sup>th</sup> (7 days)).
- Expected Reserves: Non-Wind Resource HSL + AWS Wind Forecast + Load Resource RRS – Load Outages – Load Forecast +/- Load Error.
- Model reasonably predictable in the Summer ( $R^2$  of approximately 68% for 1 and 4 days forward), less so in Spring ( $R^2$  of 9% for 1 day and 18% for 4 day).
- Sources of Model Error include: Net Load Error (load forecasting and wind forecasting error); Outage Error (units recorded in outage scheduler as intended to be offline are actually online in same time period); and HSL Error (telemetered HSL is different from forecast HSL).
- ERCOT will continue running Capacity Forecast Model until at least December and CWG/MCWG will analyze future results for potential predictive usefulness.

# Credit Work Group Update – NPRR 638

## Update on Forward Pricing Credit Calculation Methodology

- NPRR 638 designed to incorporate forward pricing seasonality into ERCOT credit calculations is currently tabled due to technical and modelling issues.
- On July 20<sup>th</sup>, Crescent Power circulated a draft NPRR / Enhanced Seasonal Adjustment White Paper on the potential to incorporate forward price curves into ERCOT credit calculations based in part on movements in forward price curves through the use of a “Forward Price Adjustment Factor.”
- CWG/MCWG have met with Argus Media and are planning to meet with ICE and Genscape in the near term regarding ERCOT Forward Power Curves.
- A number of issues remain regarding the usage of third-party proprietary curves such as the availability for potential usage by ERCOT Market Participants to shadow calculated results, and the calculation methodology including the usage of statistical data to ‘back fill’ missing data.
- If possible, third-party forward price curves will be analyzed to determine if they have a higher correlation with actual real time prices than other approaches.

# Credit Work Group Update – Market Risk Appetite Goal

## Development of ERCOT Market Risk Appetite Goal

- One of the CWG/MCWG Goals for 2015 is the quantification or development of an assessment or better understanding of Market Risk Appetite within ERCOT.
- The tabling of NPRR 638, largely due to technical reasons, has allowed the CWG the opportunity to focus on better understanding Market Participant perceptions related to default risk, credit, and collateral requirements.
- One of the main issues related to assessing credit perceptions relates to the wide variety of Market Participants across market segments with different sizes of business, varying business plans, different balance sheet and capitalization levels, municipal versus public versus private ownership, participation in ERCOT-only or multiple energy markets, etc.
- There is also a lack of data related to default probabilities or simultaneous risk exposures of multiple Market Participants due either to the unavailability of such calculations or market disclosure concerns. There is no ERCOT-wide measure such as a Value at Risk or Cash-flow at Risk to model and analyze.

# Credit Work Group Update – Market Risk Appetite Goal

## Development of ERCOT Market Risk Appetite Goal – Survey Design

- One of the tools which can be used to assess risk perceptions across various Market Participants is a survey. CWG/MCWG members have discussed the structure of such a survey at some length and have suggested seeking input from the Finance and Audit Committee in design assistance.
- Should such a survey attempt to understand:
  - Market Risk Appetite (the total exposed amount that an organization wishes to undertake on the basis of risk-return trade-offs for one or more desired and expected outcomes\*)
  - Market Risk Tolerance (the amount of uncertainty an organization is prepared to accept in total or more narrowly within a certain business unit, a particular risk category or for a specific initiative\*)
- Should questions be related solely to risk or also towards an understanding of Market Participants' perception of ERCOT credit protocols as well? Any other questions or survey focus the Finance and Audit Committee may suggest?

# Credit Work Group Update - Questions

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