DRAFT

ERCOT CORPORATE STANDARD

Document Name: Market Credit Risk Standard
Document ID: _____
Effective Date: Upon Approval
Owner: Board of Directors, F&A Committee
Approved:

1.0 PURPOSE

This Market Credit Risk Standard provides a framework by which the ERCOT Board of Directors seeks to maintain the long-term financial integrity of the ERCOT market and to help ensure that overall market credit risk is maintained within acceptable limits.

Recognizing that a number of risk factors contribute to overall market credit risk and that it is beneficial to quantify and describe these risks, a model has been developed to help evaluate the combined impact of key market credit risk factors. The model objectives and parameters are outlined further in this Market Credit Risk Standard.

This Standard and the output of the potential credit risk model do not change collateral requirements or Market Participant obligations to comply with those collateral requirements under the ERCOT Protocols. Changes to collateral requirements require a change to ERCOT Protocols through Section 21, Process for Protocol Revision.

2.0 DEFINITIONS

Base Case – the Potential Credit Risk Model scenario that considers only forms and amounts of collateral required by the ERCOT Protocols.

BOD – Board of Directors

Current Case – the Potential Credit Risk Model scenario that considers forms and amounts of collateral held as of a specific point in time. This scenario may include collateral amounts above those required by the ERCOT Protocols and which may be unilaterally withdrawn at the Counter-Party's direction.

CWG – Credit Work Group

Expected Loss – the average – although not the most common – outcome across all model outcomes It represents the loss the ERCOT market as a whole should expect to incur over time under given market conditions as a result of its portfolio credit risk.

Loss Distribution – a range of potential losses under a specific set of parameters with a given probability of occurrence

Potential Credit Risk (PCR) Model – the financial model that ERCOT uses to measure potential credit risk. It is constructed using a standard Potential Future Exposure framework that produces a portfolio Loss Distribution of potential losses.

Potential Credit Risk (PCR) Report – a report that summarizes the results from the PCR Model together with ERCOT's analysis

Potential Future Exposure (PFE) – an estimate of potential credit risk resulting from existing counterparty relationships in light of possible future risk factors such as price volatility and volume escalation.

Probability of Default (PD) – a Counter-Party specific estimate of the likelihood that a specific Counter-Party will default over a specified time horizon

TAC – Technical Advisory Committee

3.0 STANDARD

Market Credit Risk Objective
In seeking to fulfill BOD objectives to provide for a reliable Texas electricity market, ERCOT stakeholders will

- directly consider the credit implications of operational or market decisions, and
- seek to maintain a balance of identified key credit risk factors such that the combined impact of these factors yields a market-wide credit risk profile consistent with an investment grade rating

Delegation of Authority
Responsibility for monitoring and reporting on credit risk for the market consistent with this Standard is hereby delegated to the Chief Executive Officer, the Chief Financial Officer and the Treasurer. These individuals will ensure the BOD is advised of credit risk as measured by the PCR Model.

This delegation does not mean that the results of any particular model analysis will be the final determination of credit risk in the ERCOT market. Such determination rests with the BOD.

Internal Control

The Treasurer will ensure that written procedures and internal controls are established over the portfolio credit risk analysis process to ensure that results are consistent with the approved process reflected in this Standard.

The Treasurer will ensure that these controls are reviewed periodically by ERCOT's Internal Audit staff to monitor compliance with control procedures. The results of Internal Audit reviews as well as underlying controls may be reviewed by the Finance and Audit Committee of the BOD upon request.

In addition, the Treasurer, in cooperation with the BOD, will seek an independent review of the PCR Model prior to incorporating the PCR Model into any determination of collateral requirements or within one year of Nodal market implementation and at least biennially thereafter.

Measurement

ERCOT will use a standard Potential Future Exposure framework for measuring credit risk. The PCR Model, which was built on this framework, will be maintained within this framework.

At a minimum, ERCOT's portfolio credit risk analysis will include the following risk factors:

- Probability of Default for each QSE (resulting from credit score or rating),
- Forward price analysis,
- Price volatility analysis,
- Volume escalation behavior analysis, and
- Simplified collateral calculations.

ERCOT will recommend updates of these and other risk factors if key risk factors change.

ERCOT will update model assumptions periodically with CWG input. The BOD will be informed of all model parameter changes.

ERCOT will run stress scenarios in addition to the Base Case and Current Case to quantify extreme credit risk (incorporating such things as market price events, high correlations of default, impacts of specific types of market activities and high concentration of exposures to Counter-Parties or types of Counter-Parties).

While recognizing that it is impractical to model all possible loss scenarios within the PCR Model, the PCR Model is a valuable tool to more effectively monitor credit risk within the ERCOT market. The model considers identified risk factors and provides an indication of potential losses; however, actual losses may be more or less than those indicated by the model.

Reporting

ERCOT will maintain and run the PCR Model and will prepare a summary analysis of results:

1. at least quarterly,
2. whenever ERCOT determines there have been significant changes in underlying credit risk factors which warrant a model run, and
3. upon request of TAC or CWG when contemplating market rule changes for which significant credit implications are being evaluated.

The PCR Report will, at a minimum, include:

1. the Base Case and Current Case scenarios,
2. Expected Loss, median loss and Loss Distribution at the 90, 95, 99 + percentile for required and ad hoc scenarios,
3. Large impact stress scenarios at or above the 99th percentiles and other stress scenarios
4. a listing of inputs used and assumptions made (specific, where possible; general when inputs are Counter-Party specific), and
5. ERCOT's summary analysis of the reasons for significant changes in the measurement of credit risk from the prior PCR Report.

A summary of the PCR Report will be provided to the Finance and Audit Committee of the BOD, TAC and the CWG at least quarterly.

Market Credit Risk Standard Adoption.

ERCOT's Market Credit Risk Standard will be adopted by resolution of the BOD. The standard will be reviewed at least annually by the Finance and Audit Committee and any modifications made thereto must be approved by the BOD.