

Commercial Operations Market Guide

June 1, 2014

Commercial Operations Market Guide

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Commercial Operations Market Guide

Section 1: Purpose

August 1, 2010

1 PURPOSE.....1

1 PURPOSE

- (1) The Commercial Operations Market Guide (COPMG) contains information for Market Participants that describes the processes through which the ERCOT commercial operations market data is translated into financial Settlements. These processes include, but are not limited to, the application of Load Profiles, Data Aggregation, Data Extract Variance (DEV) resolutions, Congestion Revenue Rights (CRRs) Settlements, Qualified Scheduling Entity (QSE) Settlements, invoicing and dispute resolution. Commercial operations market data includes, but is not limited to, Electric Service Identifier (ESI ID) and Resource ID (RID) data, registration information, Load Profiles, aggregated Load and generation values, data extracts and market operations data.
- (2) The COPMG is not a substitute for the ERCOT Protocols or the Public Utility Commission of Texas (PUCT) Substantive Rules. Each Market Participant shall comply with the ERCOT Protocols and the PUCT Substantive Rules. In the event of a conflict between the ERCOT Protocols or PUCT Substantive Rules, the ERCOT Protocols and PUCT Substantive Rules take precedence over the COPMG.
- (3) The most recent version of the COPMG is posted on the ERCOT website.

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Section 2: Definitions and Acronyms

December 1, 2010

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2 DEFINITIONS AND ACRONYMS

Relevant terms and definitions used in this document can be found in Protocol Section 2, Definitions and Acronyms. Full text of the document is available on the ERCOT website. Sections 2.1, Definitions, and 2.2, Acronyms and Abbreviations, contain definitions and acronyms for terms not defined in the ERCOT Protocols.

2.1 Definitions

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Section 3: Organizational Structure

March 1, 2012

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3 ORGANIZATIONAL STRUCTURE

3.1 Electric Reliability Council of Texas

The functions of ERCOT are outlined in Protocol Section 1.2, Functions of ERCOT. In addition, Customer registration information can be found in Protocol Section 15, Customer Registration. As part of the certification process Competitive Retailers (CRs) and Transmission and/or Distribution Service Providers (TDSPs) must complete ERCOT registration requirements as described in Protocol Section 16, Registration and Qualification of Market Participants.

3.1.1 *ERCOT Wholesale Client Services*

- (1) ERCOT's Wholesale Client Services department is available to assist with Market Participant questions and provide education as needed on wholesale issues. Wholesale Account Managers act as the liaison between ERCOT and Market Participants as the primary contact for all wholesale market operational questions and issues and are responsible for maintaining business relationships with all Market Participants to facilitate any issue resolution. Wholesale Account Managers also address the needs of Market Participants during the registration/qualification process and actively participate in the stakeholder process to communicate and resolve issues, and monitor the rules of the market to assist Market Participants with any questions/issues. Wholesale Account Managers are also responsible for researching and resolving Settlement disputes. Wholesale Client Services is also responsible for generating and distributing market notices, Market Participant registration, and market education/training.
- (2) In addition, the Wholesale Client Services department also assists with the following:
 - (a) ERCOT Protocols;
 - (b) Market Participant registration information;
 - (c) ERCOT tools such as the ERCOT website and the Market Information System (MIS);
 - (d) Scheduling;
 - (e) Reports and extracts;
 - (f) Training needs; and
 - (g) Facilitation and general issue resolution.
- (3) Existing Market Participants should contact their assigned Wholesale Account Manager. Potential new Market Participants may call the general ERCOT Client Services phone number at (512) 248-3900 or contact ERCOT Client Services via e-mail at CientServices@ercot.com.

3.1.2 *ERCOT Retail Client Services*

The functions of ERCOT's Retail Client Services department are outlined in Retail Market Guide Section 5.1, ERCOT Retail Client Services.

3.1.3 *Help Desk*

The ERCOT Helpdesk is available as a 24x7 technical support resource. Any technical issues with ERCOT systems should be reported to the Help Desk. For technical questions about automated communications, connectivity issues such as North American Energy Standards Board (NAESB) Electronic Delivery Mechanism (EDM) or MIS, information technology support, data, and system administration issues, Market Participants should call or e-mail ERCOT's 24-hour Help Desk at (512) 248-6800 or helpdesk@ercot.com.

3.2 *Commercial Operations Subcommittee (COPS)*

- (1) The Commercial Operations Subcommittee (COPS), reporting to the Technical Advisory Committee (TAC), addresses the processes through which ERCOT market data is translated into Settlements. Commercial operations include the application of Load Profiles, Data Aggregation, Data Extract Variances (DEVs), Congestion Revenue Rights (CRRs) Settlements, Qualified Scheduling Entity (QSE) Settlements, invoicing, and dispute resolution.
- (2) COPS improves commercial operations by integrating the retail variance and wholesale market Settlements processes, including dispute resolution. COPS also addresses the Settlement Calendar, Settlement-related performance metrics and tracking, Market Participant data needs for shadow Settlements, and the market's overall needs for data extracts, delivery and presentation.
- (3) COPS has several working groups that are in place to allow Market Participants the opportunity to participate in developing business rules and practices that govern the commercial operations of the ERCOT electric market. These working groups are described below. Additional information about the working groups is available on the ERCOT website.

3.2.1 *Communications and Settlements Working Group*

- (1) The Communications and Settlements Working Group (CSWG), reporting to COPS, is responsible for the development, review and maintenance of the ERCOT Commercial Operations Market Guide (COPMG), with its primary focus on Settlements between ERCOT and QSEs.
- (2) CSWG is also responsible for advising ERCOT on the content, format and frequency of communication, which is used by ERCOT to ensure that all Market Participants receive timely and accurate market information regarding commercial operations, market rules

and system changes. CSWG also, reporting to COPS, is responsible for ensuring COPS' involvement in extracts, data delivery, data presentation and reports for financial Settlement and Data Aggregation processes.

- (3) CSWG focuses on aiding ERCOT and Market Participants with the following:
 - (a) Reviewing financial Settlement and Data Aggregation System (DAS) design and operations;
 - (b) Providing a forum to discuss issues addressing Settlement; and
 - (c) Reviewing the details and requirements of data extracts and reports.

3.2.2 Profiling Working Group (PWG)

- (1) The Profiling Working Group (PWG), reporting to COPS, acts as a forum in which Market Participants may help facilitate changes to the market rules pertaining to Load Profiling issues as reflected in the Protocols and the Load Profiling Guide (LPG).
- (2) PWG is involved in all policy issues and some operational aspects of Load Profiling. Responsibilities include:
 - (a) Developing and maintaining the LPG;
 - (b) Reviewing requested changes to Load Profiles, Load Profiling methodologies, and the implementation of the Load Profiling process;
 - (c) Reviewing and making recommendations for changes to the Profile Decision Tree;
 - (d) Helping define Weather Zones and Load Profile Types;
 - (e) Evaluating the impact of Interval Data Recorder (IDR) Meter requirements;
 - (f) Reviewing Time Of Use (TOU) profiling techniques; and
 - (g) Coordinating with ERCOT in developing Load Profiles for particular Customer segments.

3.2.3 Task Forces

COPS may form ad hoc task forces with representation on each task force being appointed or approved by COPS. The members of the task force elect a chair and vice chair, subject to confirmation by COPS, for a one-year term, on a calendar year basis or until the task force is no longer required. COPS will direct these task forces and make assignments as necessary.

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Section 4: Process for Commercial Operations Market Guide Revision

June 1, 2014

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4 PROCESS FOR COMMERCIAL OPERATIONS MARKET GUIDE REVISION

4.1 Introduction

- (1) A request to make additions, edits, deletions, revisions, or clarifications to this Commercial Operations Market Guide (COPMG), including any attachments and exhibits to this COPMG, is called a Commercial Operations Market Guide Revision Request (COPMGRR). Except as specifically provided in other sections of the COPMG, this Section 4, Process for Commercial Operations Market Guide Revision, shall be followed for all COPMGRRs. ERCOT Members, Market Participants, Public Utility Commission of Texas (PUCT) Staff, Texas Reliability Entity (Texas RE) Staff, ERCOT, and any other Entities are required to utilize the process described herein prior to requesting, through the PUCT or other Governmental Authority, that ERCOT make a change to this COPMG, except for good cause shown to the PUCT or other Governmental Authority.
- (2) The “next regularly scheduled meeting” of the Communications and Settlements Working Group (CSWG), the COPS, the Technical Advisory Committee (TAC) or the ERCOT Board shall mean the next regularly scheduled meeting for which required Notice can be timely given regarding the item(s) to be addressed, as specified in the appropriate ERCOT Board or committee procedures.
- (3) Throughout the COPMG, references are made to the ERCOT Protocols. ERCOT Protocols supersede the COPMG and any COPMGRR must be compliant with the ERCOT Protocols. The ERCOT Protocols are subject to the revision process outlined in Protocol Section 21, Revision Request Process.
- (4) ERCOT may make non-substantive corrections at any time during the processing of a particular COPMGRR. Under certain circumstances, however, the COPMG can also be revised by ERCOT rather than using the COPMGRR process outlined in this Section.
 - (a) This type of revision is referred to as an “Administrative COPMGRR” or “Administrative Changes” and shall consist of non-substantive corrections, such as typos (excluding grammatical changes), internal references (including table of contents), improper use of acronyms, references to ERCOT Protocols, PUCT Substantive Rules, the Public Utility Regulatory Act (PURA), North American Electric Reliability Corporation (NERC) regulations, Federal Energy Regulatory Commission (FERC) rules, etc., and revisions for the purpose of maintaining consistency between Section 4, Process for Commercial Operations Market Guide Revision, and Protocol Section 21, Revision Request Process.
 - (b) ERCOT shall post such Administrative COPMGRRs on the ERCOT website and distribute the COPMGRRs to the CSWG at least ten Business Days before implementation. If no Entity submits comments to the Administrative COPMGRR, in accordance with paragraph (1) of Section 4.4.3, Communications and Settlements Working Group Review and Action, ERCOT shall implement it according to paragraph (4) of Section 4.7, Revision Implementation. If any ERCOT Member, Market Participant, PUCT Staff, Texas RE Staff or ERCOT

submits comments to the Administrative COPMGRR, then it shall be processed in accordance with the COPMGRR process outlined in this Section 4.

4.2 Submission of a Commercial Operations Market Guide Revision Request

The following Entities may submit a Commercial Operations Market Guide Revision Request (COPMGRR):

- (a) Any Market Participant;
- (b) Any ERCOT Member;
- (c) Public Utility Commission of Texas (PUCT) Staff;
- (d) Texas Reliability Entity (Texas RE) Staff;
- (e) ERCOT; and
- (f) Any other Entity that meets the following qualifications:
 - (i) Resides (or represents residents) in Texas or operates in the Texas electricity market; and
 - (ii) Demonstrates that Entity (or those it represents) is affected by the Customer Registration or Renewable Energy Credit (REC) Trading Program sections of the ERCOT Protocols.

4.3 Communications and Settlements Working Group

- (1) The Communications and Settlements Working Group (CSWG) shall review and recommend action on formally submitted Commercial Operations Market Guide Revision Requests (COPMGRRs), provided that:
 - (a) CSWG meetings are open to ERCOT, ERCOT Members, Market Participants, Texas Reliability Entity (Texas RE) Staff, and the Public Utility Commission of Texas (PUCT) Staff; and
 - (b) Each Market Segment is allowed to participate.
- (2) Where additional expertise is needed, the CSWG may request that COPS refer a COPMGRR to existing Technical Advisory Committee (TAC) subcommittees, working groups or task forces for review and comment on the COPMGRR. Suggested modifications—or alternative modifications if a consensus recommendation is not achieved by a non-voting working group or task force to the COPMGRR should be submitted by the chair or the chair’s designee on behalf of the commenting subcommittee, working group or task force as comments on the COPMGRR for

consideration by CSWG. However, the CSWG shall retain ultimate responsibility for the processing of all COPMGRRs.

- (3) The CSWG shall ensure that the COPMG is compliant with the ERCOT Protocols. As such, the CSWG will monitor all changes to the ERCOT Protocols and initiate any COPMGRRs necessary to bring the COPMG in conformance with the ERCOT Protocols. The CSWG shall also initiate a Nodal Protocol Revision Request (NPRR) if such a change is necessary to accommodate a proposed COPMGRR prior to proceeding with that COPMGRR.
- (4) ERCOT shall consult with the CSWG chair to coordinate and establish the meeting schedule for the CSWG. The CSWG shall meet at least once per month, unless no COPMGRRs were submitted during the prior 24 days, and shall ensure that reasonable advance notice of each meeting, including the meeting agenda, is posted on the ERCOT website.

4.4 Commercial Operations Market Guide Revision Procedure

4.4.1 Review and Posting of Commercial Operations Market Guide Revision Requests

- (1) Commercial Operations Market Guide Revision Requests (COPMGRRs) shall be submitted electronically to ERCOT by completing the designated form provided on the ERCOT website. ERCOT shall provide an electronic return receipt response to the submitter upon receipt of the COPMGRR.
- (2) The COPMGRR shall include the following information:
 - (a) Description of requested revision and reason for suggested change;
 - (b) Impacts and benefits of the suggested change on ERCOT market structure, ERCOT operations, and Market Participants, to the extent that the submitter may know this information;
 - (c) Impact Analysis (applicable only for a COPMGRR submitted by ERCOT);
 - (d) List of affected Commercial Operations Market Guide (COPMG) sections and subsections;
 - (e) General administrative information (organization, contact name, etc.); and
 - (f) Suggested language for requested revision.
- (3) ERCOT shall evaluate the COPMGRR for completeness and shall notify the submitter, within five Business Days of receipt, if the COPMGRR is incomplete, including the reasons for such status. ERCOT may provide information to the submitter that will correct the COPMGRR and render it complete. An incomplete COPMGRR shall not

receive further consideration until it is completed. In order to pursue the COPMGRR, a submitter must submit a completed version of the COPMGRR.

- (4) If a submitted COPMGRR is complete or once a COPMGRR is completed, ERCOT shall post the COPMGRR on the ERCOT website and distribute to the Communications and Settlements Working Group (CSWG) within three Business Days.

4.4.2 Withdrawal of a Commercial Operations Market Guide Revision Request

- (1) A submitter may withdraw or request to withdraw a COPMGRR by submitting a completed Request for Withdrawal form provided on the ERCOT website. ERCOT shall post the submitter's Request for Withdrawal on the ERCOT website within three Business Days of submittal.
- (2) The submitter of a COPMGRR may withdraw the COPMGRR at any time before the CSWG recommends approval of the COPMGRR. If the CSWG has recommended approval of the COPMGRR, the Request for Withdrawal must be approved by the COPS if the COPMGRR has not yet been recommended for approval by COPS.
- (3) If COPS has recommended approval of the COPMGRR, the Request for Withdrawal must be approved by the Technical Advisory Committee (TAC) if the COPMGRR has not yet been approved or recommended for approval by TAC.
- (4) If TAC has recommended approval of a COPMGRR that requires an ERCOT project for implementation, the Request for Withdrawal must be approved by the ERCOT Board if the COPMGRR has not yet been approved by the ERCOT Board.
- (5) Once a COPMGRR that requires an ERCOT project for implementation is approved by the ERCOT Board or a COPMGRR that does not require an ERCOT project for implementation is approved by the TAC, such COPMGRR cannot be withdrawn.

4.4.3 Communications and Settlements Working Group Review and Action

- (1) Any ERCOT Member, Market Participant, the Public Utility Commission of Texas (PUCT) Staff, Texas Reliability Entity (Texas RE) Staff or ERCOT may comment on the COPMGRR.
- (2) To receive consideration, comments must be delivered electronically to ERCOT in the designated format provided on the ERCOT website within 14 days from the posting date of the COPMGRR. Comments submitted after the 14 day comment period may be considered at the discretion of CSWG after these comments have been posted. Comments submitted in accordance with the instructions on the ERCOT website, regardless of date of submission, shall be posted to the ERCOT website and distributed electronically to the CSWG within three Business Days of submittal.

- (3) The CSWG shall consider the COPMGRR at its next regularly scheduled meeting after the end of the 14 day comment period. At such meeting, the CSWG may take action on the COPMGRR. In considering action on a COPMGRR, the CSWG may:
 - (a) Recommend approval of the COPMGRR as submitted or as modified;
 - (b) Recommend rejection of the COPMGRR;
 - (c) If no consensus can be reached on the COPMGRR, present options for COPS consideration;
 - (d) Defer decision on the COPMGRR; or
 - (e) Request that COPS refer the COPMGRR to another subcommittee, working group, or task force, as provided in Section 4.3, Communications and Settlements Working Group.
- (4) Within three Business Days after CSWG takes action, ERCOT shall issue a CSWG Report reflecting the CSWG action and post it to the ERCOT website. The CSWG Report shall contain the following items:
 - (a) Identification of submitter;
 - (b) COPMG language recommended by the CSWG, if applicable;
 - (c) Identification of authorship of comments, if applicable;
 - (d) Proposed effective date of the COPMGRR;
 - (e) Recommended priority and rank for any COPMGRRs requiring an ERCOT project for implementation; and
 - (f) CSWG action.

4.4.4 Comments to the Communications and Settlements Working Group Report

- (1) Any ERCOT Member, Market Participant, PUCT Staff, Texas RE Staff or ERCOT may comment on the CSWG Report. Within three Business Days of receipt of comments related to the CSWG Report, ERCOT shall post such comments to the ERCOT website. Comments submitted in accordance with the instructions on the ERCOT website, regardless of date of submission, shall be posted on the ERCOT website within three Business Days of submittal.
- (2) The comments on the CSWG Report will be considered at the next regularly scheduled CSWG or COPS meeting where the COPMGRR is being considered.

4.4.5 Commercial Operations Market Guide Revision Request Impact Analysis

- (1) ERCOT shall submit to CSWG an initial Impact Analysis based on the original language in the COPMGRR with any ERCOT sponsored COPMGRR. The initial Impact Analysis will provide CSWG with guidance as to what ERCOT computer systems, operations, or business functions could be affected by the COPMGRR as submitted.
- (2) If CSWG recommends approval of a COPMGRR, ERCOT shall prepare an Impact Analysis based on the proposed language in the CSWG Report. If ERCOT has already prepared an Impact Analysis, ERCOT shall update the existing Impact Analysis, if necessary, to accommodate the language recommended for approval in the CSWG Report.
- (3) The Impact Analysis shall assess the impact of the proposed COPMGRR on ERCOT staffing, computer systems, operations, or business functions and shall contain the following information:
 - (a) An estimate of any cost and budgetary impacts to ERCOT for both implementation and ongoing operations;
 - (b) The estimated amount of time required to implement the COPMGRR;
 - (c) The identification of alternatives to the COPMGRR that may result in more efficient implementation; and
 - (d) The identification of any manual workarounds that may be used as an interim solution and estimated costs of the workaround.
- (4) Unless a longer review period is warranted due to the complexity of the proposed CSWG Report, ERCOT shall issue an Impact Analysis for a COPMGRR for which CSWG has recommended approval of prior to the next regularly scheduled CSWG meeting. ERCOT shall post the results of the completed Impact Analysis on the ERCOT website. If a longer review period is required by ERCOT to complete an Impact Analysis, ERCOT shall submit comments with a schedule for completion of the Impact Analysis to CSWG.

4.4.6 Communications and Settlements Working Group Review of Impact Analysis

- (1) After ERCOT posts the results of the Impact Analysis, CSWG shall review the Impact Analysis at its next regularly scheduled meeting. CSWG may revise its CSWG Report after considering the information included in the Impact Analysis or additional comments received on the CSWG Report.
- (2) After consideration of the Impact Analysis and CSWG Report, ERCOT shall issue a revised CSWG Report and post it on the ERCOT website within three Business Days of the CSWG consideration of the Impact Analysis and CSWG Report. If CSWG revises the proposed COPMGRR, ERCOT shall update the Impact Analysis, if necessary, and issue the updated Impact Analysis to COPS. If a longer review period is required for

ERCOT to update the Impact Analysis, ERCOT shall submit comments with a schedule for completion of the Impact Analysis to COPS.

- (3) If the COPMGRR requires an ERCOT project for implementation, at the same meeting, CSWG shall assign a recommended priority and rank for the associated project.

4.4.7 Commercial Operations Subcommittee Vote

- (1) COPS shall consider any COPMGRRs that CSWG has submitted to COPS for consideration for which both a CSWG Report and an Impact Analysis (as updated if modified by CSWG under Section 4.4.6, Communications and Settlements Working Group Review of Impact Analysis) have been posted on the ERCOT website. The following information must be included for each COPMGRR considered by COPS:
 - (a) The CSWG Report and Impact Analysis; and
 - (b) Any comments timely received in response to the CSWG Report.
- (2) The quorum and voting requirements for COPS action are set forth in the Technical Advisory Committee Procedures. In considering action on a CSWG Report, COPS shall:
 - (a) Recommend approval of the COPMGRR as recommended in the CSWG Report or as modified by COPS;
 - (b) Reject the COPMGRR;
 - (c) Defer decision on the COPMGRR;
 - (d) Remand the COPMGRR to the CSWG with instructions; or
 - (e) Refer the COPMGRR to another COPS working group or task force or another TAC subcommittee with instructions.
- (3) If a motion is made to recommend approval of a COPMGRR and that motion fails, the COPMGRR shall be deemed rejected by COPS unless at the same meeting COPS later votes to recommend approval of, defer, remand, or refer the COPMGRR. If a motion to recommend approval of a COPMGRR fails via e-mail vote according to the Technical Advisory Committee Procedures, the COPMGRR shall be deemed rejected by COPS unless at the next regularly scheduled COPS meeting or in a subsequent e-mail vote prior to such meeting, COPS votes to recommend approval of, defer, remand, or refer the COPMGRR. The rejected COPMGRR shall be subject to appeal pursuant to Section 4.5, Appeal of Action.
- (4) Within three Business Days after COPS takes action on the COPMGRR, ERCOT shall issue a COPS Report reflecting the COPS action and post it on the ERCOT website. The COPS Report shall contain the following items:

- (a) Identification of the submitter of the COPMGRR;
- (b) Modified COPMG language proposed by COPS, if applicable;
- (c) Identification of the authorship of comments, if applicable;
- (d) Proposed effective date(s) of the COPMGRR;
- (e) Recommended priority and rank for any COPMGRR requiring an ERCOT project for implementation;
- (f) CSWG action; and
- (g) COPS action.

4.4.8 ERCOT Impact Analysis Based on Commercial Operations Subcommittee Report

ERCOT shall review the COPS Report and, if necessary, update the Impact Analysis as soon as practicable. ERCOT shall issue the updated Impact Analysis, if applicable, to the TAC and post it on the ERCOT website. If a longer review period is required for ERCOT to update the Impact Analysis, ERCOT shall submit comments with a schedule for completion of the Impact Analysis to TAC.

4.4.9 Protocol Revision Subcommittee Review of Project Prioritization

At the next regularly scheduled Protocol Revision Subcommittee (PRS) meeting after COPS recommends approval of a COPMGRR that requires an ERCOT project for implementation, the PRS shall assign a recommended priority and rank for the associated project.

4.4.10 Technical Advisory Committee Vote

- (1) TAC shall consider any COPMGRR that COPS has submitted to TAC for consideration for which both a COPS Report and an Impact Analysis (as updated if modified by COPS under Section 4.4.8, ERCOT Impact Analysis Based on Commercial Operations Subcommittee Report) have been posted on the ERCOT website. The following information must be included for each COPMGRR considered by TAC:
 - (a) The COPS Report and Impact Analysis;
 - (b) The recommended priority and rank, if an ERCOT project is required; and
 - (c) Any comments timely received in response to the COPS Report.
- (2) The quorum and voting requirements for TAC action are set forth in the Technical Advisory Committee Procedures. In considering action on a COPS Report, TAC shall:

- (a) Approve the COPMGRR as recommended in the COPS Report or as modified by TAC, if the COPMGRR does not require an ERCOT project for implementation;
 - (b) Recommend approval of the COPMGRR as recommended in the COPS Report or as modified by TAC, including modification of the recommended priority and rank if the COPMGRR requires an ERCOT project for implementation;
 - (c) Reject the COPMGRR;
 - (d) Defer decision on the COPMGRR;
 - (e) Remand the COPMGRR to COPS with instructions; or
 - (f) Refer the COPMGRR to another TAC subcommittee or a TAC working group or task force with instructions.
- (3) If a motion is made to approve or recommend approval of a COPMGRR and that motion fails, the COPMGRR shall be deemed rejected by TAC unless at the same meeting TAC later votes to approve, recommend approval of, defer, remand or refer the COPMGRR. If a motion to approve or recommend approval of a COPMGRR fails via e-mail vote according to the Technical Advisory Committee Procedures, the COPMGRR shall be deemed rejected by TAC unless at the next regularly scheduled TAC meeting or in a subsequent e-mail vote prior to such meeting, TAC votes to approve, recommend approval of, defer, remand, or refer the COPMGRR. The rejected COPMGRR shall be subject to appeal pursuant to Section 4.5, Appeal of Action.
- (4) Within three Business Days after TAC takes action on a COPMGRR, ERCOT shall issue a TAC Report reflecting the TAC action and post it on the ERCOT website. The TAC Report shall contain the following items:
- (a) Identification of the submitter of the COPMGRR;
 - (b) Modified COPMG language proposed by TAC, if applicable;
 - (c) Identification of the authorship of comments, if applicable;
 - (d) Proposed effective date(s) of the COPMGRR;
 - (e) Priority and rank for any COPMGRR requiring an ERCOT project for implementation;
 - (f) COPS action;
 - (g) TAC action; and
 - (h) ERCOT's position for any COPMGRR requiring an ERCOT project for implementation.

- (5) If TAC recommends approval of a COPMGRR requiring an ERCOT project for implementation, ERCOT shall forward the TAC Report to the ERCOT Board for consideration pursuant to Section 4.4.11, ERCOT Board Vote.
- (6) The TAC chair shall report the results of all votes by TAC related to COPMGRRs to the ERCOT Board at its next regularly scheduled meeting.

4.4.11 ERCOT Board Vote

- (1) For any COPMGRR requiring an ERCOT project for implementation, upon issuance of a TAC Report and Impact Analysis to the ERCOT Board, the ERCOT Board shall review the TAC Report and the Impact Analysis at the following month's regularly scheduled meeting. For Urgent COPMGRRs, the ERCOT Board shall review the TAC Report and Impact Analysis at the next regularly scheduled meeting, unless a special meeting is required due to the urgency of the COPMGRR.
- (2) The quorum and voting requirements for ERCOT Board action are set forth in the ERCOT Bylaws. In considering action on a TAC Report, the ERCOT Board shall:
 - (a) Approve the COPMGRR as recommended in the TAC Report or as modified by the ERCOT Board;
 - (b) Reject the COPMGRR;
 - (c) Defer decision on the COPMGRR; or
 - (d) Remand the COPMGRR to TAC with instructions.
- (3) If a motion is made to approve a COPMGRR and that motion fails, the COPMGRR shall be deemed rejected by the ERCOT Board unless at the same meeting the ERCOT Board later votes to approve, defer, or remand the COPMGRR. The rejected COPMGRR shall be subject to appeal pursuant to Section 4.5, Appeal of Action.
- (4) Within three Business Days after the ERCOT Board takes action on a COPMGRR, ERCOT shall issue a Board Report reflecting the ERCOT Board action and post it on the ERCOT website.

4.5 Appeal of Action

- (1) Any ERCOT Member, Market Participant, the Public Utility Commission of Texas (PUCT) Staff, Texas Reliability Entity (Texas RE) Staff or ERCOT may appeal a Communications and Settlements Working Group (CSWG) action to recommend rejection of, defer, or recommend referral of a Commercial Operations Market Guide Revision Request (COPMGRR) directly to the COPS. Such appeal to the COPS must be submitted electronically to ERCOT by completing the designated form provided on the ERCOT website within seven days after the date of the relevant CSWG appealable event. ERCOT shall reject appeals made after that time. ERCOT shall post appeals on the

ERCOT website within three Business Days of receiving the appeal. Appeals shall be heard at the next regularly scheduled COPS meeting that is at least seven days after the date of the requested appeal. An appeal of a COPMGR to COPS suspends consideration of the COPMGR until the appeal has been decided by COPS.

- (2) Any ERCOT Member, Market Participant, PUCT Staff, Texas RE Staff or ERCOT may appeal a COPS action to reject, defer, remand or refer a COPMGR directly to the Technical Advisory Committee (TAC). Such appeal to the TAC must be submitted electronically to ERCOT by completing the designated form provided on the ERCOT website within seven days after the date of the relevant COPS appealable event. ERCOT shall reject appeals made after that time. ERCOT shall post appeals on the ERCOT website within three Business Days of receiving the appeal. Appeals shall be heard at the next regularly scheduled TAC meeting that is at least seven days after the date of the requested appeal. An appeal of a COPMGR to TAC suspends consideration of the COPMGR until the appeal has been decided by TAC.
- (3) Any ERCOT Member, Market Participant, PUCT Staff, Texas RE Staff or ERCOT may appeal a TAC action to approve, reject, defer, remand or refer a COPMGR directly to the ERCOT Board. Appeals to the ERCOT Board shall be processed in accordance with the ERCOT Board Policies and Procedures. An appeal of a COPMGR to the ERCOT Board suspends consideration of the COPMGR until the appeal has been decided by the ERCOT Board.
- (4) Any ERCOT Member, Market Participant, PUCT Staff or Texas RE Staff may appeal any decision of the ERCOT Board regarding a COPMGR to the PUCT or other Governmental Authority. Such appeal to the PUCT or other Governmental Authority must be made within any deadline prescribed by the PUCT or other Governmental Authority, but in any event no later than 35 days of the date of the relevant ERCOT Board appealable event. Notice of any appeal to the PUCT or other Governmental Authority must be provided, at the time of the appeal, to ERCOT's General Counsel. If the PUCT or other Governmental Authority rules on the COPMGR, ERCOT shall post the ruling on the ERCOT website.

4.6 Urgent Requests

- (1) The party submitting a Commercial Operations Market Guide Revision Request (COPMGR) may request that the COPMGR be considered on an urgent timeline ("Urgent") only when the submitter can reasonably show that an existing Commercial Operations Market Guide (COPMG) provision is impairing or could imminently impair ERCOT System reliability or wholesale or retail market operations, or is causing or could imminently cause a discrepancy between a Settlement formula and a provision of the ERCOT Protocols.
- (2) The Commercial Operations Subcommittee (COPS) may designate the COPMGR for Urgent consideration if a submitter requests Urgent status or upon valid motion in a

regularly scheduled meeting of the COPS. Criteria for designating a COPMGRR as Urgent are that the COPMGRR requires immediate attention due to:

- (a) Serious concerns about ERCOT System reliability or market operations under the unmodified language; or
 - (b) The crucial nature of Settlement activity conducted pursuant to any Settlement formula.
- (3) ERCOT shall prepare an Impact Analysis for Urgent COPMGRRs as soon as practicable.
 - (4) COPS or the Communications and Settlements Working Group (CSWG) shall consider the Urgent COPMGRR and Impact Analysis, if available at the next regularly scheduled COPS or CSWG meeting, or at a special meeting called by the COPS or CSWG chair to consider the Urgent COPMGRR.
 - (5) If the submitter desires to further expedite processing of the COPMGRR, a request for voting via electronic mail may be submitted to the COPS chair. The COPS chair may grant the request for voting via electronic mail. Such voting shall be conducted pursuant to the Technical Advisory Committee Procedures. If COPS recommends approval of the Urgent COPMGRR, ERCOT shall issue a COPS Report reflecting the COPS action and post it in the ERCOT website within three Business Days after COPS takes action. The Technical Advisory Committee (TAC) chair may request action from TAC to accelerate or alter the procedures described herein, as needed, to address the urgency of the situation.
 - (6) Any COPMGRRs that take effect pursuant to an Urgent request shall be subject to an Impact Analysis pursuant to Section 4.4.8, ERCOT Impact Analysis Based on Commercial Operations Subcommittee Report, and TAC consideration pursuant to Section 4.4.10, Technical Advisory Committee Vote.

4.7 Revision Implementation

- (1) For Commercial Operations Market Guide Revision Requests (COPMGRRs) that do not require an ERCOT project for implementation, upon Technical Advisory Committee (TAC) approval, ERCOT shall implement the COPMGRRs on the first day of the month following TAC approval, unless otherwise provided in the TAC Report for the approved COPMGRR.
- (2) For COPMGRRs that require an ERCOT project for implementation, upon ERCOT Board approval, ERCOT shall implement COPMGRRs on the first day of the month following ERCOT Board approval, unless otherwise provided in the Board Report for the approved COPMGRR.
- (3) For COPMGRRs for which an effective date other than the first day of the month following TAC or ERCOT Board approval, as applicable, is provided, the ERCOT

Impact Analysis shall provide an estimated implementation date and ERCOT shall provide notice as soon as practicable, but no later than ten days prior to actual implementation unless a different notice period is required in the TAC or Board Report, as applicable, for the approved COPMGRR.

- (4) ERCOT shall implement an Administrative COPMGRR on the first day of the month following the end of the ten Business Day posting requirement outlined in Section 4.1, Introduction.

Commercial Operations Market Guide

Section 5: Market Notice Communication Process

September 1, 2010

5 MARKET NOTICE COMMUNICATION PROCESS 5-1

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5 MARKET NOTICE COMMUNICATION PROCESS

5.1 ERCOT Market Notice Communication Process

From time to time, ERCOT communicates information to the market via e-mail Notifications for scheduled releases, planned and unplanned service outages, business processing failures and other general information. ERCOT shall communicate information to the market as specified in Appendix A, Market Notice Communication Process, which includes the following:

- (a) Table 1: ERCOT Service/System Affected
- (b) Table 2: Market Notice Tracking Codes
- (c) Sample Notice - System Generated Notice (Reference Item (4)(a) of Appendix A)
- (d) Sample Notice - Non System Generated Notice (Reference Item (4)(b) and (4)(c) of Appendix A)
- (e) Table 3: Planned Release Notifications
- (f) Table 4a: ERCOT Planned Maintenance Notifications
- (g) Table 5a: ERCOT Business Processing Failures Notifications
- (h) Table 6: Notification of Outage During Business Hours
- (i) Table 7: Notification of Outage Outside of Business Hours
- (j) Table 8: E-mail Notification Subscription Lists
- (k) Table 9: Additional E-mail Notification Lists Matrix

5.2 Market Participant Communication Process

From time to time, Market Participants may communicate information to the market via e-mail Notifications for planned maintenance, unplanned system outages or business processing failures, and other general information. Market Participants shall communicate information to the market as specified in Appendix A, Market Notice Communication Process, which includes the following:

- (a) Sample Notice - Market Participant Notice (Reference Item (4)(d) of Appendix A)
- (b) Table 4b: Market Participant Planned Maintenance Notifications

- (c) Table 5b: Market Participant Unplanned System Outages or Business Processing Failures Notifications

Commercial Operations Market Guide

Section 6

November 1, 2007

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Commercial Operations Market Guide

Section 7

November 1, 2007

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Commercial Operations Market Guide

Section 8: ERCOT Settlement and Invoice Process

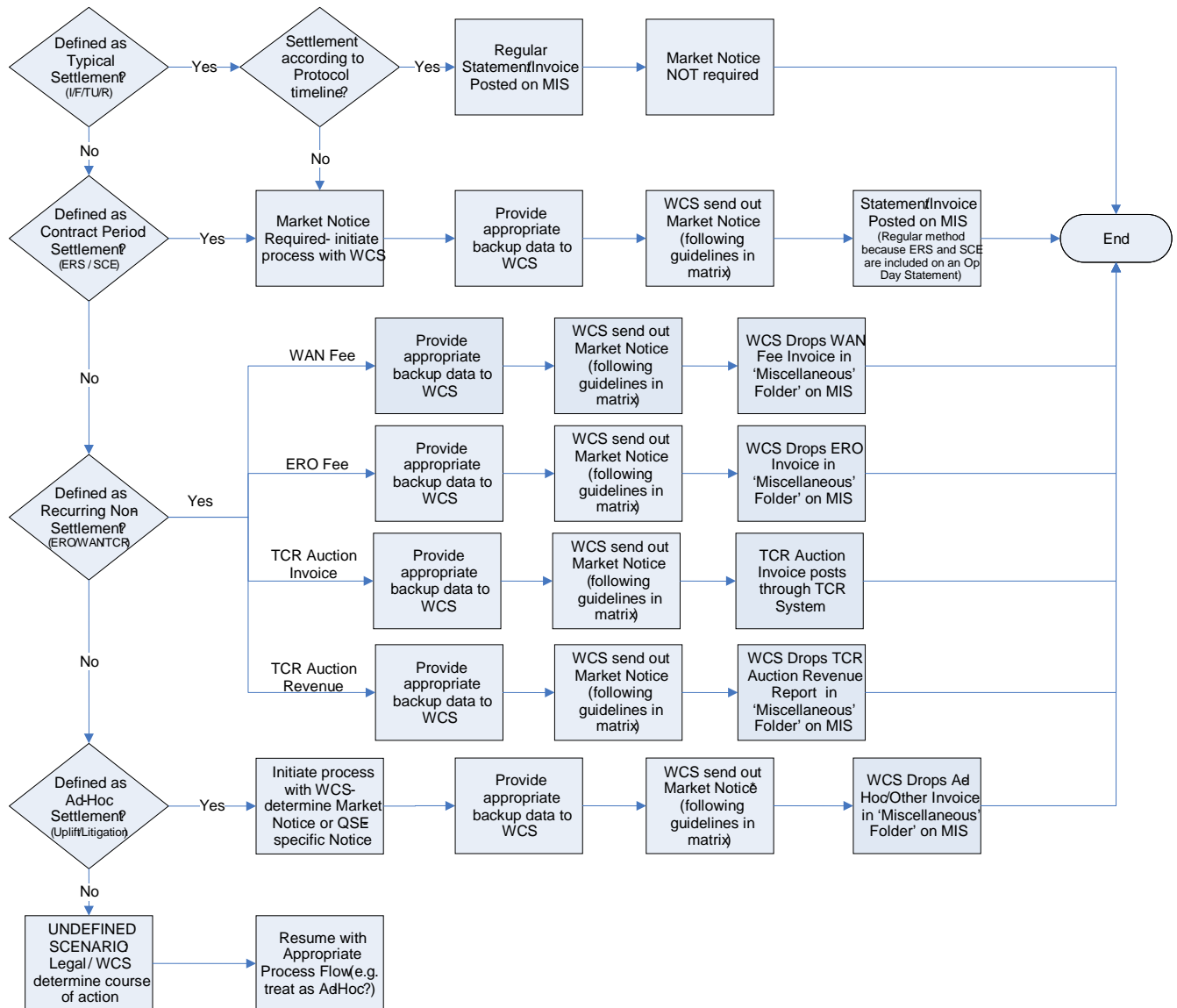
May 1, 2014

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8 ERCOT SETTLEMENT AND INVOICE PROCESS

8.1 Invoice Process

The process for receiving the ERCOT weekly Invoice based on Settlement Statements are documented in Protocol Section 9.6, Settlement Invoices for the Real-Time Market. This Section explains the process for Invoices that are not settled according to the Protocol timeline.



* Note: It is ERCOT Legal's opinion that a Market Notice may not be possible in all cases. WCS will work with Legal to make sure that every attempt is made to craft a message that provides notice to the market while respecting confidentiality requirements.

8.1.2 Types of Ad Hoc Invoices

The following are types of Settlements that will be invoiced on an ad hoc basis:

(a) Contract Period

These are Settlements based on a contract period instead of an operating date.

- (i) Schedule Control Error (SCE); and
- (ii) Emergency Response Service (ERS).

(b) Recurring Non-Settlement Related Charges

These are routine, non-standard Settlements.

- (i) Wide Area Network (WAN) fee;
- (ii) Electric Reliability Organization (ERO) fee;
- (iii) Transmission Congestion Right (TCR) auction Invoice; and
- (iv) TCR auction revenue.

(c) Ad Hoc Settlement

These are Settlements that occur infrequently and are not a part of standard operations.

- (i) Uplift of short pays; and
- (ii) Litigation.

(d) Undefined Scenarios

These are Settlements for any scenario that is not defined as a typical Settlement that usually originates from the following groups:

- (i) ERCOT Legal;
- (ii) ERCOT Wholesale Client Services (WCS); and
- (iii) ERCOT Finance.

8.1.3 Method of Communication

The method of communication varies depending on the type of ad hoc Invoice. Although ERCOT WCS will send out Market Notices for ad hoc Invoice circumstances, whenever possible, they are unable to commit to providing Notice in every circumstance. In all scenarios, the following Authorized Representatives registered with ERCOT will receive an email regarding the Invoice. These Authorized Representatives will receive an email from ClientServices@ercot.com.

- (a) Primary Authorized Representative;
- (b) Backup Authorized Representative;
- (c) Accounts payable; and
- (d) Accounts payable backup.

8.1.4 *Timing of Communication*

ERCOT WCS will send the Market Notice in advance of the Invoice, as many days as possible. However, there could be potential situations when ERCOT WCS is unable to provide a sufficient Market Notice.

8.1.5 *Content of Communication*

If there is sufficient time, the communication from ERCOT will contain as much detail as possible. In circumstances where an extremely quick turn-around-time is required, there may be a need to send a Notice that is light on content but provides an advanced warning of the ad hoc Settlement.

- (a) The subject line of the Market Notice will indicate the appropriate urgency and action.
- (b) If the ad hoc Invoice does not impact all Qualified Scheduling Entities (QSEs), the Market Notice will define the parameters by which a QSE can determine whether or not they should receive an Invoice (e.g., “all QSEs with Load in February 2005 will receive this Invoice, adjustments made to reflect QSEs with Load who have exited the market” or “all QSEs who were short-paid in March 2003 will receive payment”).
- (c) The signature within the Market Notice will include the standard ERCOT signature/contact information.
- (d) The Market Notice will indicate when the Invoice will be posted and where the Invoice will be posted. Normally, the Invoice will be posted in the “Miscellaneous” folder on the Market Information System (MIS).

8.1.6 *Market Participants*

Each Market Participant should ensure that the accounting contacts registered with ERCOT are current to ensure that the Invoices are received and paid in a timely manner.

8.2 Settlement Statements and Invoices

- (1) The Real-Time Market (RTM), the Day-Ahead Market (DAM), and the Congestion Revenue Right (CRR) Auction are settled separately. Each type of Settlement has a unique set of statements and/or Invoices and settles according to a different timeline. Settlement Statements and Invoices can apply to a registered CRR Account Holder (CRRAH), a registered Qualified Scheduling Entity (QSE), or both. The table below provides details regarding the various statements and Invoices.

| Type | Invoice or Statement | Recipient | Frequency | Post Timing | Payment Due |
|------|--|--|-----------|---|---|
| CRR | CRR Auction Invoice | <ul style="list-style-type: none"> • CRRAHs | Monthly | 1 st Business Day after completion of a CRR Auction (Monthly and Annual CRR Auctions will be invoiced separately) | 3 rd Bank Business Day after Invoice posts (<i>or next day that is both Business Day and Bank Business Day</i>) |
| | CRR Auction Revenue Distribution Invoice | <ul style="list-style-type: none"> • QSEs (with Load) | Monthly | 1 st Business Day after RTM Initial Statement posts for the last day of the relevant month and 1 st Business Day after RTM Final Statement posts for the last day of the relevant month | 5 th Bank Business Day after Invoice posts (<i>or next day that is both Business Day and Bank Business Day</i>) |
| | CRR Balancing Account Invoice | <ul style="list-style-type: none"> • CRRAH (due a shortfall refund) • QSEs (with load) | Monthly | 1 st Business Day after RTM Initial Statement posts for the last day of the relevant month | 1 st Bank Business Day after the due date of the RTM Invoice that includes the RTM Initial Settlement statement for the last day of the month (<i>or next day that is both Business Day and Bank Business Day</i>) *Note: Payout to market only |
| DAM | DAM Statement | <ul style="list-style-type: none"> • QSEs • CRRAHs | Daily | 2 nd Business after the Operating Day | n/a |
| | DAM Resettlement Statement | <ul style="list-style-type: none"> • QSEs • CRRAHs | Ad hoc | Ad hoc (<i>on Business Day</i>) *Note: Notice posted on Market Information System (MIS) Public Area | n/a |
| RTM | RTM Initial Settlement Statement | <ul style="list-style-type: none"> • QSEs • CRRAHs | Daily | Operating Day + 5 (<i>or next Business Day</i>) | n/a |
| | RTM Final Settlement Statement | <ul style="list-style-type: none"> • QSEs • CRRAHs | Daily | Operating Day + 55 (<i>or next Business Day</i>) | n/a |

| | | | | | |
|-----|---------------------------------------|--|---------|---|---|
| | RTM True-Up Settlement Statement | <ul style="list-style-type: none"> • QSEs • CRRAHs | Daily | Operating Day + 180 (<i>or next Business Day</i>) | n/a |
| | RTM Resettlement Settlement Statement | <ul style="list-style-type: none"> • QSEs • CRRAHs | Ad hoc | Ad hoc (<i>on Business Day</i>) *Note: Notice posted on MIS Public Area | n/a |
| | Default Uplift Invoice | <ul style="list-style-type: none"> • QSEs • CRRAHs | Ad hoc | Ad hoc (<i>on Business Day</i>) *Market Notice required | 5 th Bank Business Day after the Invoice posts, (<i>or next day that is both Business Day and Bank Business Day</i>) |
| | Miscellaneous Invoice | <ul style="list-style-type: none"> • QSEs • CRRAHs | Ad hoc | Ad hoc (<i>on Business Day</i>) *Market Notice required | Specified in the Market Notice |
| STL | Settlement Invoice | <ul style="list-style-type: none"> • QSE • CRRAHs | Daily | Every Business Day – Rolls up all statements posted that day | 2 nd Bank Business Day after the Invoice posts, (<i>or next day that is both Business Day and Bank Business Day</i>) |
| | Late Fee Invoice | <ul style="list-style-type: none"> • QSE • CRRAHs | Monthly | 10 th calendar day after the end of the relevant month (<i>or next Business Day</i>) | 4 th Business Day after Invoice posts (<i>or next day that is both Business Day and Bank Business Day</i>) |

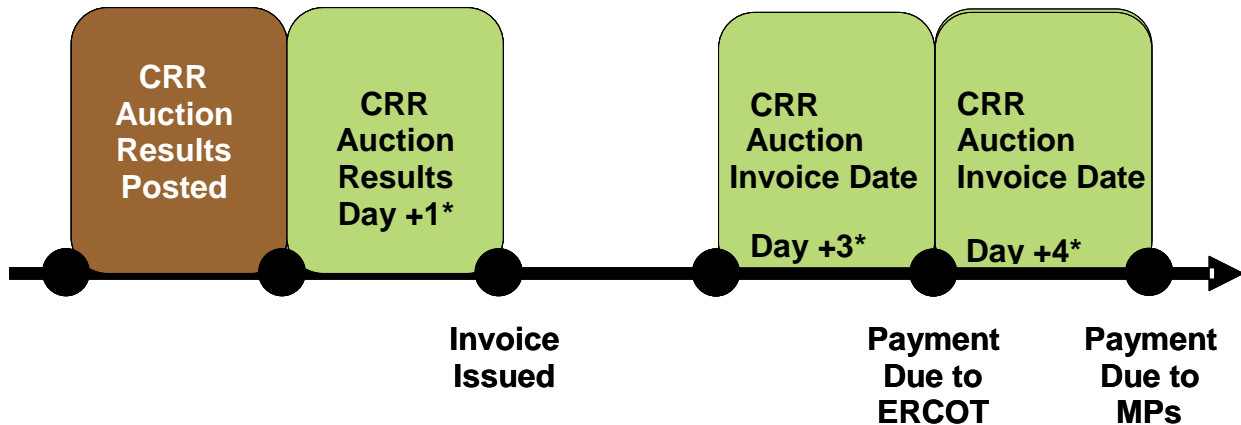
- (2) Upon approval and posting of Settlement Statements and Invoices, the associated data is sent to the Credit Monitoring & Management (CMM) system for use in credit calculations. Similarly, when payment is made to or from the QSE/CRRAH, the payment data is subsequently sent to the CMM system.
- (3) The QSE Settlement Statements and Invoices and the CRRAH Statements and Invoices are available on the MIS Certified Area. Statements and Invoices are ‘MIS Certified’ meaning they are Market Participant specific and have data proprietary to individual Entities. Therefore, these files are only available to those Entities owning the data and having a matching Data Universal Numbering System (DUNS) Number.
- (4) Market Participants must have access to the ERCOT MIS and a Digital Certificate with appropriate roles in order to retrieve data via the MIS and/or Application Programmatic Interface (API). This Digital Certificate must be obtained from your Entity’s User Security Administrator (USA) and must contain the role of QSE Extracts (for QSEs) or CRR Extracts (for CRRs) in order to view and download statements, Invoices and/or related Settlement extracts.
- (5) Invoices, statements and extracts are also available via the API. To download the information from the API, utilize the report type IDs as described in the Nodal Settlement and extract user guides, along with the GetReport functionality on the API. For details regarding this option, refer to the External Web Services information posted to the ERCOT website.

- (6) In addition to statements and Invoices, the Settlements Calendar which provides statement, Invoice and dispute posting information details, is provided as an extract and can be found on both the MIS Public Area and on the ERCOT website. Supporting information for the Settlements Calendar can be found in the Settlements Calendar User Guide and in the Data Definition Language (DDL) and Extensible Markup Language (XML) Schema Definition (XSD).
- (7) Settlement details, including the supporting input, intermediate, and output Settlement billing determinants and other data associated with Settlement Statements and Invoices are found in the appropriate Settlements extracts and reports. When viewing QSE/CRRRAH Settlement Statements, a negative amount represents a payment due to the QSE/CRRRAH and a positive amount represents a payment due to ERCOT. More information about the available extracts and reports, as well as example statements and Invoices, are available on the MIS Public Area and on the ERCOT website. Descriptions and definitions for the billing determinants can be found on the ERCOT website in the Settlement Charge Matrix and in the relevant Protocol sections. (Also see Section 10, Extracts and Reports).
- (8) Information about the Settlements Calendar, statements, and Invoices may be found in Protocol Section 9, Settlement and Billing.

8.2.1 *Congestion Revenue Right (CRR) Settlement Invoices*

8.2.1.1 CRR Auction Award Invoices

Refer to Protocol Sections 9.8, CRR Auction Award Invoices, and 9.9, Payment Process for CRR Auction Invoices, for details regarding CRR Auction invoicing. Monthly and Annual CRR Auctions are invoiced separately. Additionally, each year of the two year annual auction will be invoiced separately.

CRR Auction Invoice Timeline

*Must be a Business Day or move to next Business Day.

| ERCOT | | CRR AUCTION INVOICE | | | | | |
|---|------------|--|----------|--------------------------|----------------|----------------|--|
| | | Auction: | | MONTHLY-FEBRUARY,2013 | | | |
| | | Invoice No: | | CRR450 | | | |
| | | Invoice Date: | | 01/24/2013 | | | |
| | | Payments are due to ERCOT by 5:00 P.M. (CPT) on: | | 01/29/2013 | | | |
| | | Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: | | 01/30/2013 | | | |
| | | AMOUNT OWED (DUE): | | \$366.45 | | | |
| INVOICE RECIPIENT | | | | | | | |
| Name: | | CRRAH 1 (CRRAH) | | | | | |
| ID: | | 1234567895000 | | | | | |
| CRR ID | HEDGE TYPE | PCRR TYPE | BUY/SELL | AMOUNT | CLEARING PRICE | AWARD FEE | |
| 15480000 | OPTPAMT | | B | \$158.45 | \$0.02 | \$0.00 | |
| 15480001 | OPTPAMT | | B | \$27.69 | \$0.01 | \$4.31 | |
| 15480002 | OPTPAMT | | B | \$55.37 | \$0.01 | \$8.63 | |
| 15480003 | OPTPAMT | | B | \$54.49 | \$0.01 | \$1.51 | |
| 15480004 | OPTPAMT | | B | \$54.49 | \$0.01 | \$1.51 | |
| TOTAL | | | | \$350.49 | | \$15.96 | |
| REMITTANCE INFORMATION | | | | | | | |
| Account Name | | ERCOT Account | | Recipient Account | | | |
| ERCOT ACCOUNT | | ERCOT ACCOUNT | | CRRAH 1 ACCOUNT | | | |
| Bank Name | | ERCOT BANK | | CRRAH 1 BANK | | | |
| ABA Routing Number | | 444444444 | | 222222222 | | | |
| Account Number | | 333333333333 | | 111111111111 | | | |
| Overdue Terms | | | | | | | |
| In the event ERCOT does not receive your payment by close of business on the "Payments are due to ERCOT" date, CRR Bids awarded and/or PCRRs allocated shall be forfeited by the Invoice Participant. | | | | | | | |

8.2.1.2 CRR Auction Revenue Distribution (CARD) Invoice

Refer to Protocol Sections 9.10, CRR Auction Revenue Distribution Invoices, and 9.11, Payment Process for CRR Auction Revenue Distribution, for details regarding CRR Auction Revenue Distribution (CARD) invoicing. The 'Time Period' label on the Invoice indicates the month relevant to the CRR Auction revenue being paid out to QSEs.



CRR AUCTION REVENUE DISTRIBUTION (CARD INVOICE)

Time Period: FEB 2010

Invoice No: CR053

Invoice Date: 02/11/2010

Payments are due to ERCOT by 5:00 P.M. (CPT) on: 02/19/2010
 Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: 02/20/2010

AMOUNT OWED (DUE): \$7,059.30

INVOICE RECIENT

Name: QSE1
 ID: 1234567892000

| DESCRIPTION | CATEGORY | MONTHLY TOTALS | BILLABLE AMOUNT |
|--|----------------------|----------------|------------------|
| LACMRIBILLAMT - Load-Allocated CRR Monthly Revenue Non-Zonal Bill Amount | INITIAL Distribution | (\$774,425.34) | (\$774,425.34) |
| | FINAL Distribution | (\$800,425.34) | (\$26,000.00) |
| LACMRZBILLAMT - Load-Allocated CRR Monthly Revenue Zonal Bill Amount | INITIAL Distribution | (\$316,466.90) | (\$316,466.90) |
| | FINAL Distribution | (\$297,526.20) | \$18,940.70 |
| TOTALS | INITIAL Distribution | | (\$1,090,892.24) |
| | FINAL Distribution | | (\$7,059.30) |

REMITTANCE INFORMATION

| | ERCOT Account | Recipient Account |
|--------------------|---------------|-------------------|
| Account Name | ERCOT | QSE1 |
| Bank Name | ERCOT Bank | QSE1 Owner Bank |
| ABA Routing Number | 111111111 | 222222222 |
| Account Number | 333333333 | 444444444 |

Overdue Terms

In the event ERCOT does not receive your payment by close of bank business on the "Payment are due to ERCOT" date, your credit standing with ERCOT may be affected and subject to review.

8.2.1.3 CRR Balancing Account (CRRBA) Invoice

Refer to Protocol Sections 9.12, CRR Balancing Account Invoices, and 9.13, Payment Process for CRR Balancing Account, for details regarding CCR Balancing Account (CRRBA) invoicing. The "Time Period" label on the Invoice indicates the month relevant to the balancing account funds being paid out to CRRAHs and/or QSEs.



CRR BALANCING ACCOUNT INVOICE

Time Period: **JAN-2010**Invoice No: **CBA10**Invoice Date: **02/11/2010**Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: **02/26/2010****AMOUNT OWED (DUE): (\$5,714.71)**

INVOICE RECIPIENT

Name: **CRRAH1**
ID: **1234567895000**

| DESCRIPTION | AMOUNT |
|-----------------------------|---------------------|
| CRRRAMT - CRR Refund Amount | (\$5,714.71) |
| AMOUNT OWED (DUE): | (\$5,714.71) |

REMITTANCE INFORMATION

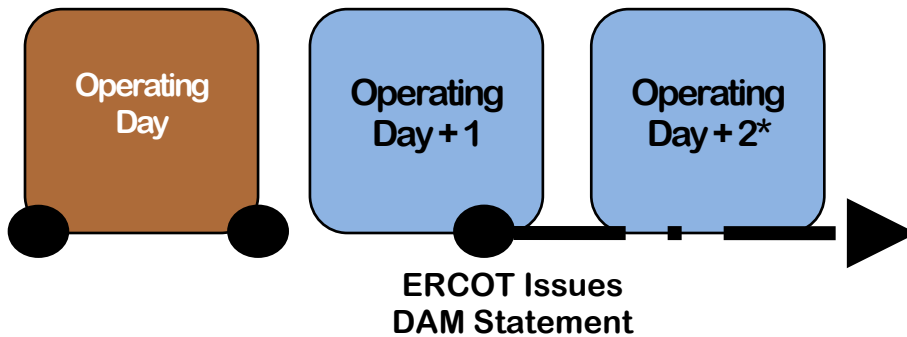
| | ERCOT Account | Recipient Account |
|--------------------|---------------|-------------------|
| Account Name | ERCOT | CRRAH1 |
| Bank Name | ERCOT Bank | CRR Owner Bank |
| ABA Routing Number | 111111111 | 555555555 |
| Account Number | 333333333 | 666666666 |

8.2.2 Day-Ahead Market Statements

The DAM Statements for CRRAHs and QSEs are issued two days after the Operating Day.

Refer to Protocol Section 9.2, Settlement Statements for the Day-Ahead Market, for details regarding DAM Statements. In the case of a “No DAM” scenario, where DAM is not successfully executed for an Operating Day, DAM Statements will not be generated or posted for that Operating Day.

DAM Statement Timeline



*Must be a Business Day or move to next Business Day.

DAM Statement

| Participant Name | | OSE1 | SETTLEMENT SUMMARY | |
|---------------------------------------|---------|-----------------------------|------------------------------|------------|
| Participant ID | | 1234567892000 | | |
| Statement ID | | DAM_021010_1234567892000_D1 | Operating Day | 02/10/2010 |
| TOTALS | | | | |
| Status | Version | Billed Amount | | |
| DAM | 1 | \$2,884,232.71 | | |
| Operating Day Total | | | \$2,884,232.71 | |
| ▶ DAY-AHEAD ANCILLARY SERVICES | | | BILLABLE AMT: \$55,921.22 | |
| ▶ DAY-AHEAD ENERGY | | | BILLABLE AMT: \$2,828,311.49 | |
| ▶ DAY-AHEAD MAKE-WHOLE | | | NO ACTIVITY | |
| ▶ DAY-AHEAD CONGESTION REVENUE RIGHTS | | | NO ACTIVITY | |
| TOTALS | | | | |
| Status | Version | Billed Amount | | |
| DAM | 1 | \$2,884,232.71 | | |
| Operating Day Total | | | \$2,884,232.71 | |

8.2.2.1 DAM Invoice

Refer to Protocol Sections 9.3 and 9.4 for details regarding DAM invoicing. A DAM Invoice is created separately for each published DAM statement and DAM Resettlement Statement.



DAY-AHEAD MARKET INVOICE

Invoice No: **DAM1560**
 Invoice Date: **02/12/2010**

Payments are due to ERCOT by 5:00 P.M. (CPT) on: **02/18/2010**
 Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: **02/19/2010**

AMOUNT OWED (DUE): \$2,884,232.71

INVOICE RECIPIENT

Name: **QSE1**
 ID: **1234567892000**

| CATEGORY | STATEMENT ID | OPERATING DAY | STATEMENT AMOUNT |
|------------|------------------------------------|-------------------|-----------------------|
| DAM | DAM_021010_1234567892000_D1 | 02/10/2010 | \$2,884,232.71 |

REMITTANCE INFORMATION

| | ERCOT Account | Recipient Account |
|---------------------------|---------------|-------------------|
| Account Name | ERCOT | QSE1 |
| Bank Name | ERCOT BANK | QSE1 Owner Bank |
| ABA Routing Number | 111111111 | 2222222222 |
| Account Number | 333333333 | 444444444 |

Overdue Terms

In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date a late fee of Prime + 2% APR may be applied to any outstanding balance.

8.2.2.2 DAM Late Fee Invoice

Refer to Protocol Section 9.4.5, Late Fees and Late Fee Invoices for the DAM, for details regarding the DAM late fee invoicing process. To better facilitate verification of relatively small late fee charges and credits, the late fee charge line items have greater precision than the total amount on the Late Fee Invoice.

Late Fee Charge Invoice



DAY-AHEAD MARKET LATE FEE INVOICE

Time Period: **JAN-2010**

Invoice No: **DLF53**

Invoice Date: **02/10/2010**

Payments are due to ERCOT by 5:00 P.M. (CPT) on: **02/17/2010**

Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: **02/18/2010**

AMOUNT OWED (DUE): \$44.64

INVOICE RECIPIENT

Name: **QSE1**
ID: **1234567892000**

| LATE FEE CALCULATION DATE | DAM LATE FEE CHARGES | DAM LATE FEE CREDITS |
|---------------------------|----------------------------|----------------------|
| 01/01/2010 | \$14.880827877 | \$0 |
| 01/02/2010 | \$14.880827877 | \$0 |
| 01/03/2010 | \$14.880827877 | \$0 |
| Subtotals | \$44.64 | \$0.00 |
| | TOTAL DAM LATE FEES | \$44.64 |

REMITTANCE INFORMATION

| | ERCOT Account | Recipient Account |
|---------------------------|---------------|-------------------|
| Account Name | ERCOT | QSE1 |
| Bank Name | ERCOT Bank | QSE1 Owner Bank |
| ABA Routing Number | 111111111 | 222222222 |
| Account Number | 333333333 | 444444444 |

Overdue Terms

In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date your credit standing with ERCOT may be affected and subject to review.

Late Fee Credit Invoice



DAY-AHEAD MARKET LATE FEE INVOICE

Time Period: FEB-2010

Invoice No: DLF54

Invoice Date: 03/10/2010

Payments are due to ERCOT by 5:00 P.M. (CPT) on: 03/16/2010
 Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: 03/17/2010

AMOUNT OWED (DUE): (\$548.54)

INVOICE RECIPIENT

Name: QSE2
 ID: 1234567892000

| LATE FEE CALCULATION DATE | DAM LATE FEE CHARGES | DAM LATE FEE CREDITS |
|---------------------------|----------------------------|----------------------|
| 02/01/2010 | \$0 | (\$182.8466) |
| 02/02/2010 | \$0 | (\$182.8466) |
| 02/03/2010 | \$0 | (\$182.8466) |
| Subtotals | \$0 | (\$548.54) |
| | TOTAL DAM LATE FEES | (\$548.54) |

REMITTANCE INFORMATION

| | ERCOT Account | Recipient Account |
|---------------------------|---------------|-------------------|
| Account Name | ERCOT | QSE2 |
| Bank Name | ERCOT Bank | QSE2 Owner Bank |
| ABA Routing Number | 111111111 | 777777777 |
| Account Number | 333333333 | 888888888 |

Overdue Terms

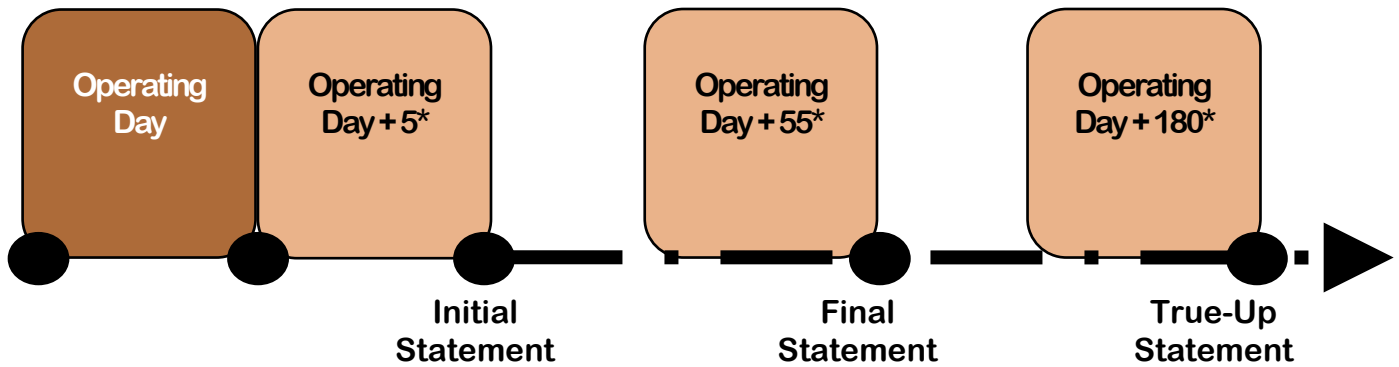
In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date your credit standing with ERCOT may be affected and subject to review.

8.2.3 Real-Time Market Statements and Invoices

8.2.3.1 Real-Time Market Statements

- (1) Refer to Protocol Section 9.5, Settlement Statements for Real-Time Market, for details regarding RTM Settlement Statements.
- (2) There are four types of RTM Settlement Statements: Initial, Final, True-Up and Resettlement.
- (3) The figure below illustrates the timing of each statement. Resettlements can occur at any point in accordance with Protocol Section 9.5.6, RTM Resettlement Statement.

RTM Statement Timeline



**Must be a Business Day or move to next Business Day.*

8.2.3.1.1 RTM Initial Statement

| ERCOT | | REAL-TIME MARKET STATEMENT | |
|--|-----------------------------|------------------------------|----------------|
| Participant Name | GSE1 | SETTLEMENT SUMMARY | |
| Participant ID | 01234567892999 | | |
| Statement ID | RTM_011510_01234567892999_H | Operating Day | 01/15/2010 |
| TOTALS | | | |
| Status | Version | Billed Amount | |
| RTM_INITIAL | 1 | \$1,342,652.00 | |
| | | Operating Day Total | \$1,342,652.00 |
| ▶ REAL-TIME ANCILLARY SERVICES | | BILLABLE AMT: \$1,006.41 | |
| ▶ BLACK START CAPACITY | | BILLABLE AMT: \$207.43 | |
| ▶ EMERGENCY OPERATIONS | | NO ACTIVITY | |
| ▶ GENERATION RESOURCE BASE-POINT DEVIATION | | BILLABLE AMT: \$2197.08 | |
| ▶ REAL-TIME CONGESTION REVENUE RIGHTS | | BILLABLE AMT: \$093,268.67 | |
| ▶ REAL-TIME ENERGY | | BILLABLE AMT: \$633,718.83 | |
| ▶ REAL-TIME REVENUE NEUTRALITY ALLOCATION | | BILLABLE AMT: (\$191,330.65) | |
| ▶ RELIABILITY MUST-RUN | | BILLABLE AMT: \$440.19 | |
| ▶ RELIABILITY UNIT COMMITMENT | | BILLABLE AMT: (\$1,986.85) | |
| ▶ VOLTAGE SUPPORT | | NO ACTIVITY | |
| ▶ ADMINISTRATIVE FEES | | BILLABLE AMT: \$5,051.77 | |
| TOTALS | | | |
| Status | Version | Billed Amount | |
| RTM_INITIAL | 1 | \$1,342,652.00 | |
| | | Operating Day Total | \$1,342,652.00 |

8.2.3.1.2 RTM Final Statement



Participant Name: 0501
 Participant ID: 01234567892000
 Statement ID: RTM_010510_01234567892000_F2
 Operating Day: 01/15/2010

SETTLEMENT SUMMARY

TOTALS

| Status | Version | Billed Amount |
|-------------|---------|----------------------------|
| RTM_INITIAL | 1 | \$1,342,652.80 |
| RTM_FINAL | 2 | \$010.63 |
| | | Operating Day Total |
| | | \$1,343,163.40 |

▶ REAL-TIME ANCILLARY SERVICES BILLABLE AMT: \$344.02

▶ BLACK START CAPACITY BILLABLE AMT: \$113.88

▶ EMERGENCY OPERATIONS NO ACTMITY

▶ GENERATION RESOURCE BASE-POINT DEVIATION BILLABLE AMT: \$0.00

▶ REAL-TIME CONGESTION REVENUE RIGHTS BILLABLE AMT: (\$256.61)

▶ REAL-TIME ENERGY BILLABLE AMT: (\$1,529.49)

▶ REAL-TIME REVENUE NEUTRALITY ALLOCATION BILLABLE AMT: \$2,811.04

▶ RELIABILITY MUST-RUN BILLABLE AMT: (\$52.82)

▶ RELIABILITY UNIT COMMITMENT BILLABLE AMT: (\$1,340.77)

▶ VOLTAGE SUPPORT NO ACTMITY

▶ ADMINISTRATIVE FEES BILLABLE AMT: \$421.29

TOTALS

| Status | Version | Billed Amount |
|-------------|---------|----------------------------|
| RTM_INITIAL | 1 | \$1,342,652.80 |
| RTM_FINAL | 2 | \$010.63 |
| | | Operating Day Total |
| | | \$1,343,163.40 |

8.2.3.1.3 *RTM True-Up Statement*

| ERCOT | | REAL-TIME MARKET STATEMENT | |
|--|------------------------------|----------------------------|----------------|
| Participant Name | 05E1 | SETTLEMENT SUMMARY | |
| Participant ID | #1234567892999 | | |
| Statement ID | RTM_#11518_#1234567892999_T3 | Operating Day | #115/2018 |
| TOTALS | | | |
| Status | Version | Billed Amount | |
| RTM_INITIAL | 1 | \$1,342,652.80 | |
| RTM_FINAL | 2 | \$510.63 | |
| RTM_TRUEUP | 3 | \$204.37 | |
| Operating Day Total | | | \$1,343,367.70 |
| ▶ REAL-TIME ANCILLARY SERVICES | | BILLABLE AMT: \$50.47 | |
| ▶ BLACK START CAPACITY | | BILLABLE AMT: \$59.03 | |
| ▶ EMERGENCY OPERATIONS | | NO ACTIVITY | |
| ▶ GENERATION RESOURCE BASE-POINT DEVIATION | | BILLABLE AMT: \$0.00 | |
| ▶ REAL-TIME CONGESTION REVENUE RIGHTS | | BILLABLE AMT: \$0.00 | |
| ▶ REAL-TIME ENERGY | | BILLABLE AMT: (\$35.59) | |
| ▶ REAL-TIME REVENUE NEUTRALITY ALLOCATION | | BILLABLE AMT: \$104.21 | |
| ▶ RELIABILITY MUST-RUN | | BILLABLE AMT: (\$81.74) | |
| ▶ RELIABILITY UNIT COMMITMENT | | BILLABLE AMT: \$0.00 | |
| ▶ VOLTAGE SUPPORT | | NO ACTIVITY | |
| ▶ ADMINISTRATIVE FEES | | BILLABLE AMT: \$27.99 | |
| TOTALS | | | |
| Status | Version | Billed Amount | |
| RTM_INITIAL | 1 | \$1,342,652.80 | |
| RTM_FINAL | 2 | \$510.63 | |
| RTM_TRUEUP | 3 | \$204.37 | |
| Operating Day Total | | | \$1,343,367.70 |

8.2.3.1.4 RTM Resettlement Statement



REAL-TIME MARKET STATEMENT

Participant Name **OSE1** SETTLEMENT SUMMARY
 Participant ID **01234567892000**
 Statement ID **RTM_020110_01234567892000_R3** Operating Day **02/01/2010**

TOTALS

| Status | Version | Billed Amount |
|----------------------------|---------|---------------------|
| RTM_INITIAL | 1 | (\$7,554.58) |
| RTM_FINAL | 2 | \$0.00 |
| RTM_RESETTLEMENT | 3 | \$119.77 |
| Operating Day Total | | (\$7,434.81) |

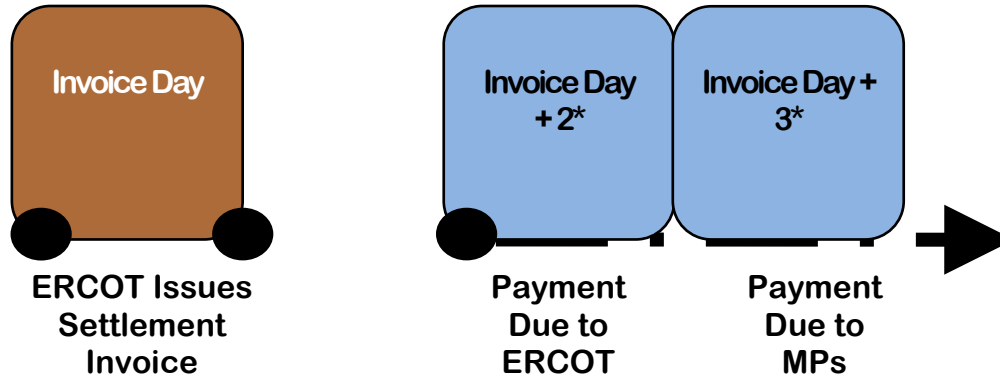
| | |
|--|--------------------------|
| ▶ REAL-TIME ANCILLARY SERVICES | BILLABLE AMT: \$33.18 |
| ▶ BLACK START CAPACITY | BILLABLE AMT: \$40.64 |
| ▶ EMERGENCY OPERATIONS | NO ACTIVITY |
| ▶ GENERATION RESOURCE BASE-POINT DEVIATION | BILLABLE AMT: \$0.00 |
| ▶ REAL-TIME CONGESTION REVENUE RIGHTS | BILLABLE AMT: (\$154.27) |
| ▶ REAL-TIME ENERGY | BILLABLE AMT: \$19.65 |
| ▶ REAL-TIME REVENUE NEUTRALITY ALLOCATION | BILLABLE AMT: \$150.49 |
| ▶ RELIABILITY MUST-RUN | BILLABLE AMT: (\$54.90) |
| ▶ RELIABILITY UNIT COMMITMENT | BILLABLE AMT: \$0.00 |
| ▶ VOLTAGE SUPPORT | NO ACTIVITY |
| ▶ ADMINISTRATIVE FEES | BILLABLE AMT: \$84.98 |

TOTALS

| Status | Version | Billed Amount |
|----------------------------|---------|---------------------|
| RTM_INITIAL | 1 | (\$7,554.58) |
| RTM_FINAL | 2 | \$0.00 |
| RTM_RESETTLEMENT | 3 | \$119.77 |
| Operating Day Total | | (\$7,434.81) |

8.2.3.2 Settlement Invoice

Refer to Protocol Section 9.6, Settlement Invoices for Day-Ahead Market and the Real-Time Market, for details regarding the invoicing process. The weekly daily Settlement invoicing process finds and includes the DAM, RTM Initial, Final, True-Up and/or Resettlement Statements that are posting on the same day.




*Must be a Business Day or move to next Business Day.

| INVOICE RECIPIENT | | SETTLEMENT INVOICE | | |
|--|---|--|------------------------------------|----------------------|
| Name: | QSE1 (QSE) | Invoice No: | STL13388 | |
| ID: | 123456789 | Invoice Date: | 01/02/2013 | |
| | | Payments are due to ERCOT by 5:00 P.M. | 01/04/2013 | |
| | | Payments will be made to Invoice Recipients by 5:00 P.M. | 01/07/2013 | |
| | | AMOUNT OWED (DUE): | (\$31,855.92) | |
| CATEGORY | STATEMENT ID | OPERATING DAY | STATEMENT AMOUNT | SUBTOTAL |
| DAM Statements | DAM_STATEMENT_20121228_123456789_D1 | 12/28/2012 | (\$0.01) | |
| | | | DAM Statements Subtotal | (\$0.01) |
| Initial Statements | RTM_INITIAL_STATEMENT_20121223_123456789_I1 | 12/23/2012 | (\$16,885.34) | |
| | RTM_INITIAL_STATEMENT_20121224_123456789_I1 | 12/24/2012 | (\$14,976.48) | |
| | | | Initial Statements Subtotal | (\$31,861.82) |
| Final Statements | RTM_FINAL_STATEMENT_20121103_123456789_F2 | 11/03/2012 | \$0.00 | |
| | RTM_FINAL_STATEMENT_20121104_123456789_F2 | 11/04/2012 | \$0.00 | |
| | | | Final Statements Subtotal | \$0.00 |
| True-Up Statements | RTM_TRUEUP_STATEMENT_20120705_123456789_T3 | 07/05/2012 | (\$0.73) | |
| | RTM_TRUEUP_STATEMENT_20120706_123456789_T3 | 07/06/2012 | \$6.64 | |
| | | | True-Up Statements Subtotal | \$5.91 |
| | | | NET AMOUNT OWED (DUE) | (\$31,855.92) |
| REMITTANCE INFORMATION | | | | |
| Account Name | ERCOT Account | Recipient Account | QSE1 ACCOUNT | |
| Bank Name | ERCOT BANK | | QSE1 BANK | |
| ABA Routing Number | 444444444 | | 222222222 | |
| Account Number | 3333333333 | | 11111111111 | |
| Overdue Terms | | | | |
| In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date a late fee of Prime + 2% APR may be applied to any outstanding balance. | | | | |

8.2.3.3 Default Uplift Invoice

Refer to Protocol Sections 9.19.1, Default Uplift Invoices, and 9.19.2, Payment Process for Default Uplift Invoices, for details regarding the Default Uplift Invoicing process. The Default Uplift Invoicing process allocates DAM and/or RTM losses to QSEs and CRRAHs.



DEFAULT UPLIFT INVOICE

Invoice No: DEF1209
 Invoice Date: 09/02/2014

Payments are due to ERCOT by 5:00 P.M. (CPT) on: 09/09/2014
 Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: 09/10/2014

AMOUNT OWED (DUE): **\$167.07**

| INVOICE RECIPIENT | | | | |
|-------------------|---------------|--|--|--|
| Name: | QSE 1 | | | |
| ID: | 1234567892000 | | | |


| DESCRIPTION | INVOICE DUE | REFERENCE | UPLIFTED AMOUNT | BILLABLE AMOUNT |
|--|-------------|-----------|-----------------|-----------------|
| September 2014 Default | 03/04/2014 | STL16843 | \$7,997.56 | |
| Subtotal - September 2014 Default | | | \$7,997.56 | |
| Previous Uplift for September 2014 Default | | | \$0.00 | |
| Reduction due to \$2.5M cap | | | \$0.00 | |
| TOTAL - September 2014 Default | | | \$7,997.56 | \$167.07 |
| NET AMOUNT DUE | | | | \$167.07 |

| REMITTANCE INFORMATION | | |
|------------------------|---|-------------------|
| | ERCOT Account | Recipient Account |
| Account Name | ELECTRIC RELIABILITY COUNCIL OF TEXAS INC | QSE 1 |
| Bank Name | ERCOT Bank | QSE 1 Owner Bank |
| ABA Routing Number | 111111111 | 333333333 |
| Account Number | 222222222 | 444444444 |

Overdue Terms
 In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date a late fee of Prime + 2% APR may be applied to any outstanding balance.

8.2.3.4 Late Fee Invoice

Refer to Protocol Section 9.7.4, Late Fees and Late Fee Invoices for the Settlement Invoices, for details regarding the Late Fee Invoicing process. To better facilitate verification of relatively small late fee charges and credits, the late fee charge line items have greater precision than the total amount on the Late Fee Invoice.



LATE FEE INVOICE

Time Period: **NOV-2012**

Invoice No: **SLF387**

Invoice Date: **12/10/2012**

Payments are due to ERCOT by 5:00 P.M. 5:00 P.M. (CPT) on: **12/14/2012**

Payments will be made to Invoice Recipients by 5:00 P.M. 5:00 P.M. (CPT) on: **12/17/2012**

AMOUNT OWED (DUE): \$12.83

| INVOICE RECIPIENT | | |
|-------------------|----------------------|--|
| Name: | QSE1 | |
| ID: | 1234567892000 | |

| LATE FEE CALCULATION DATE | LATE FEE CHARGES | LATE FEE CREDITS |
|---------------------------|------------------------------|------------------|
| 11/28/2012 | \$12.83111 | \$0.00 |
| Subtotals | \$12.83 | \$0.00 |
| | NET AMOUNT OWED (DUE) | \$12.83 |

| REMITTANCE INFORMATION | | |
|------------------------|---|-------------------|
| | ERCOT Account | Recipient Account |
| Account Name | ELECTRIC RELIABILITY COUNCIL OF TEXAS INC | QSE1 |
| Bank Name | ERCOT Bank | QSE1 Owner Bank |
| ABA Routing Number | 111111111 | 333333333 |
| Account Number | 222222222 | 444444444 |

Overdue Terms

In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date your credit standing with ERCOT may be affected and subject to review.

|

8.2.3.5 Miscellaneous Invoice

In the event that ERCOT cannot reasonably Invoice Market Participants via one of the other Protocol-defined Invoices, ERCOT may utilize the Miscellaneous Invoice. Use of the Miscellaneous Invoice would be noticed to the market and could be in support of any invoicing activity described as “ad hoc” in Section 8.1, Invoice Process, of this document. The Miscellaneous Invoice posts to the same location on MIS as other QSE/CRRRAH Invoices. This Invoice is generated out of the Settlements and Billing System using data which is derived and input by analysts. The Invoice format allows for flexibility to communicate descriptive information which varies depending on the nature of the ad hoc Invoice.



MISCELLANEOUS INVOICE

Category: **MISC**

Invoice No: **MSC100**
 Invoice Date: **05/11/2009**

Payments are due to ERCOT by 5:00 P.M. (CPT) on: **05/16/2009**
 Payments will be made to Invoice Recipients by 5:00 P.M. (CPT) on: **05/17/2009**

AMOUNT OWED (DUE): \$2,500.00

INVOICE RECIPIENT

Name: **QSE1**
 ID: **1234567892000**

| DESCRIPTION 1 | DESCRIPTION 2 | DESCRIPTION 3 | DESCRIPTION 4 | AMOUNT |
|------------------------------|---------------|-------------------------------|---------------|---------|
| Ad-Hoc Reason Description | March 2009 | Allocation Factor = 0.1111 | | 2500.00 |

REMITTANCE INFORMATION

| | ERCOT Account | Recipient Account |
|--------------------|---------------|-------------------|
| Account Name | ERCOT | QSE1 Bank |
| Bank Name | ERCOT BANK | QSE1 Owner Bank |
| ABA Routing Number | 111111111 | 222222222 |
| Account Number | 333333333 | 444444444 |

Overdue Terms

In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date your credit standing with ERCOT may be affected and subject to review.

Commercial Operations Market Guide

Section 9

November 1, 2007

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Commercial Operations Market Guide

Section 10: Extracts and Reports

March 1, 2012

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10 EXTRACTS AND REPORTS

- (1) ERCOT provides reports and extracts to assist Market Participants in understanding data pertaining to, but not limited to, energy and Ancillary Services, market prices, retail and wholesale activity, Load Profiling, Metering, Data Aggregation and Settlements. Extracts and reports provide supplemental data to allow Market Participants a view into ERCOT's operational and commercial systems. Extract data is provided in raw form to facilitate the loading of data into a database. Reports are in a formatted presentation which facilitates stand-alone reading.
- (2) ERCOT publishes information regarding extracts and reports at <http://www.ercot.com/services/mdt/>. This information includes, but is not limited to, the ERCOT Market Information List (EMIL), Data Definition Language (DDL), XML Schema Definition (XSD), user guides and market aid documentation.

10.1 Security Classification Types

For more information on public, secure and certified data security classifications, please see the definition of Market Information System (MIS) in Protocol Section 2, Definitions and Acronyms.

10.2 Subscribing to Extracts

Market Participants who wish to receive certain certified extracts must access the extract subscriber application which allows Market Participants to subscribe/unsubscribe to the listed extracts. The individual extract user guides contain specific information on the availability and format of the given extract.

10.3 Unregistered Distributed Generation Reports

10.3.1 *Reporting Requirements for Non Opt-In Entities*

- (1) This Section describes the data that shall be submitted to ERCOT for the unregistered Distributed Generation (DG) behind Non-Opt-In Entity (NOIE) boundary metering points as required by paragraph (2)(e) of Protocol Section 10.2.2, TSP and DSP Metered Entities.
- (2) Within ten Business Days after the end of each quarter, the NOIE shall submit to ERCOT electronically, the required data described below as of the last day of the prior quarter. The data shall be submitted using the generic form developed by ERCOT and e-mailed to 1 ERCOT EAA Data Aggregation@ercot.com. The Non-Opt-In-Entity Distributed Generation Reporting Form is located on the ERCOT website under Services/Registration and Qualification/Resource Entities.

- (a) Total unregistered DG above 50 kW and equal to or below the DG registration threshold by the following groupings:
 - (i) Technology Type
 - (A) Renewable
 - (B) Non-renewable
 - (ii) Primary Fuel Type
 - (A) Solar
 - (B) Wind
 - (C) Other
 - (iii) Name Plate Rating (MW)
 - (iv) Load Zone
- (b) Annual kWh exported to the grid during the prior 12 months for each grouping.

10.3.2 Reporting Requirements for Competitive Areas

The data for competitive areas will be compiled from the reports submitted to ERCOT as found in the Load Profiling Guide, Appendix D, Load Profiling Decision Tree, DRG Tab.

10.3.3 Reporting Requirements for ERCOT

- (1) Within 30 days after the end of each quarter, ERCOT shall publish the Unregistered Distributed Generation Report on the Market Information System (MIS) Public area. This report shall include the aggregated data compiled for NOIE and competitive areas. This report at a minimum shall include the total unregistered DG above 50 kW and equal to or below the current DG registration threshold by the following groupings:
 - (a) Technology Type
 - (i) Renewable
 - (ii) Non-renewable
 - (b) Primary Fuel Type
 - (i) Solar

- (ii) Wind
 - (iii) Other
 - (c) Name Plate Rating MW
 - (d) Load Zone
- (2) The report shall also include:
- (a) Annual kWh exported to the grid during the prior 12 months for each grouping; and
 - (b) New proposed DG threshold for registration as defined in Protocol Section 16.5, Registration of a Resource Entity.
- (3) ERCOT shall update the Commercial Operations Subcommittee (COPS) on an as needed basis on the Unregistered Distributed Generation Report.

10.4 ERCOT Market Information List

- (1) The ERCOT Market Information List (EMIL) is an inventory list of all products externally delivered by ERCOT as required by Protocols and Other Binding Documents. For definitions and descriptions of EMIL content, please refer to the “Definitions Tab” within the EMIL.
- (2) The EMIL contains unique report type ids for each product as delivered by ERCOT as well as attribute information on the corresponding product.

Attribute information includes:

- (a) Name of product;
- (b) Description;
- (c) Traceability references;
- (d) Data delivery access points;
- (e) Recipient list;
- (f) Supporting reference material information;
- (g) Report type id;
- (h) Format;
- (i) Inclusion on Extract Subscriber: and

- (j) Market Information System (MIS) specific information for data classification and location.
- (3) Reference materials include Data Definition Language (DDL) and XML Schema Definition (XSD), which can be found on the ERCOT website as well as the MIS. DDLs and XSDs are used in conjunction with .csv and .xml file formats. DDLs are used to load .csv files into a relational database and include the column and table name definitions. XSDs provide the data tag and element information for use with .xml files and are also used for web services. Other reference materials available include user guides and market aides. These documents will provide specifics regarding content, format, Extract Subscriber, loading suggestions, use, etc.
- (4) Report type ids are listed for each product that can be retrieved using the external web service “Get Report” functionality.
- (5) The “MIS” tab within the EMIL workbook contains the EMIL id, product name and MIS navigation information used to locate the menu tab, landing page and portlet posting location.
- (6) The “Traceability” tab contains the EMIL id, product name and traceability reference to Protocols or Other Binding Documents.

Commercial Operations Market Guide

Section 11: Disputes and Data Extract Variances

December 1, 2010

11 DISPUTES AND DATA EXTRACT VARIANCES.....1

11.1 ERCOT Disputes**Error! Bookmark not defined.**

 11.1.1 Overview *Error! Bookmark not defined.*

 11.1.2 Settlement Calendar *Error! Bookmark not defined.*

 11.1.3 Dispute Access..... *Error! Bookmark not defined.*

 11.1.4 Dispute Items..... *Error! Bookmark not defined.*

 11.1.5 Valid Dispute Statuses and Resolutions *Error! Bookmark not defined.*

 11.1.6 Dispute Reporting *Error! Bookmark not defined.*

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11 DISPUTES AND DATA EXTRACT VARIANCES

11.1 ERCOT Disputes

- (1) Section 9, Settlement and Billing, describes the various requirements for the implementation and maintenance of the Dispute Management Process. Qualified Scheduling Entities (QSEs) in the Day-Ahead Market (DAM) and Real-Time Market (RTM) and QSEs and Congestion Revenue Right (CRR) Account Holders for the DAM, RTM, and CRR markets are responsible for the review of their Settlement Statements and Settlement Invoices to verify the accuracy of the Settlement data used to produce the Settlement Statement and Settlement Invoice. Recipients must submit any dispute related to the Settlement Statement or Settlement Invoice data. All communication to and from ERCOT concerning disputes must be through either the Market Information System (MIS) Certified Area dispute tool or other electronic communications. Recipients shall be able to file the dispute, create the dispute-associated activities and view the progress of the dispute.
- (2) In accordance with Protocols, ERCOT will issue Resettlement Statements as soon as possible due to data error other than prices that result in an impact greater than two percent of the total payments due to ERCOT, otherwise ERCOT will wait until the next scheduled Settlement. Protocol Sections 9.2.5, DAM Resettlement Statement, and 9.5.6, RTM Resettlement Statement, describes the timing of resettlements due to Settlement and billing disputes.

11.1.1 Overview

The following figures illustrate an overview of the process flow of the Dispute Management System, detailed process flows based on the type of statement being disputed, and the process for denied disputes. Protocol Section 9 also describes the timing of disputes.

Figure 1: Dispute Management System Process Flow Overview

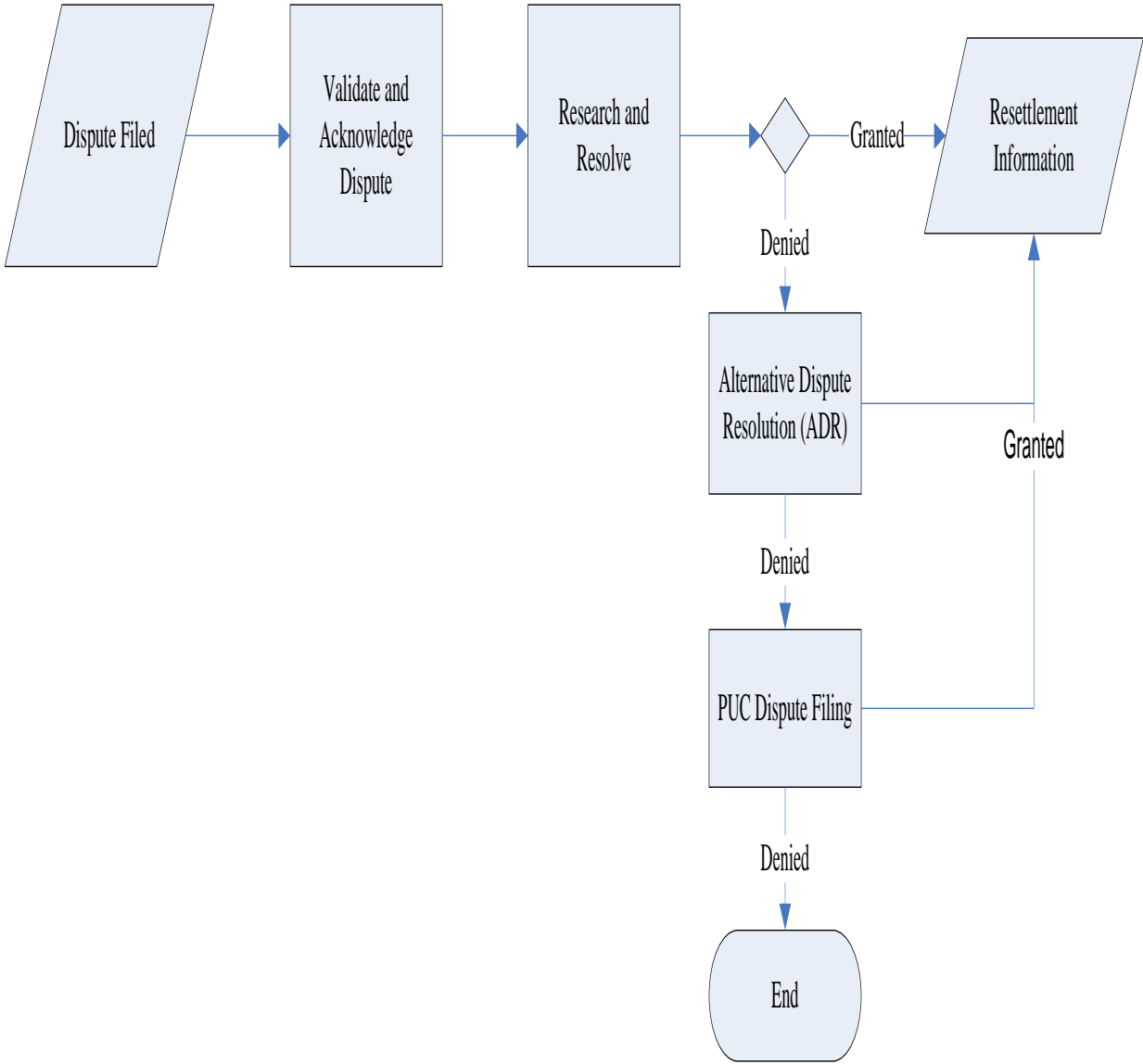


Figure 2: Process for Disputing a Real-Time Statement and Invoice

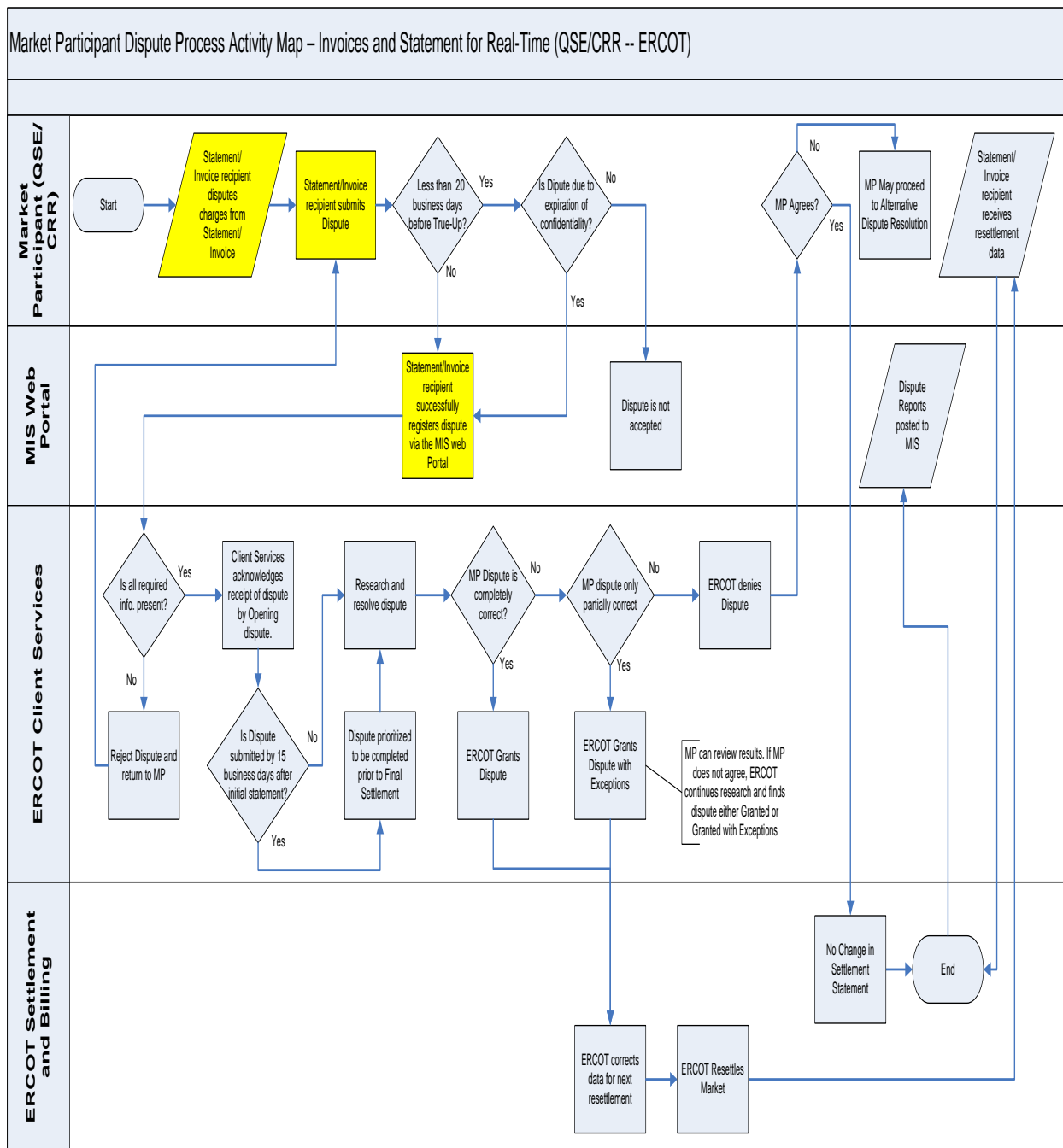


Figure 3: Process for Disputing Statements and Invoices Other than Real-Time

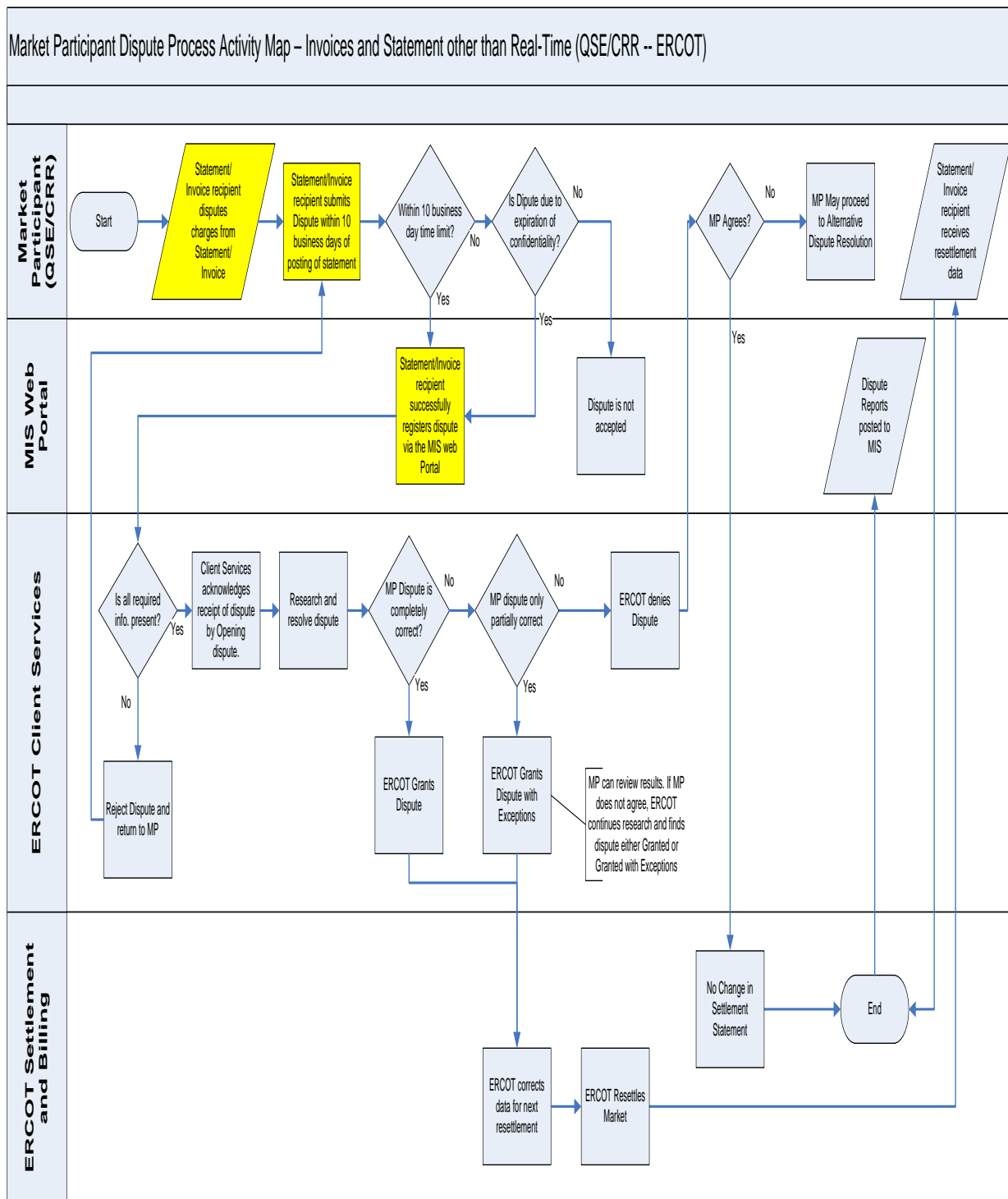
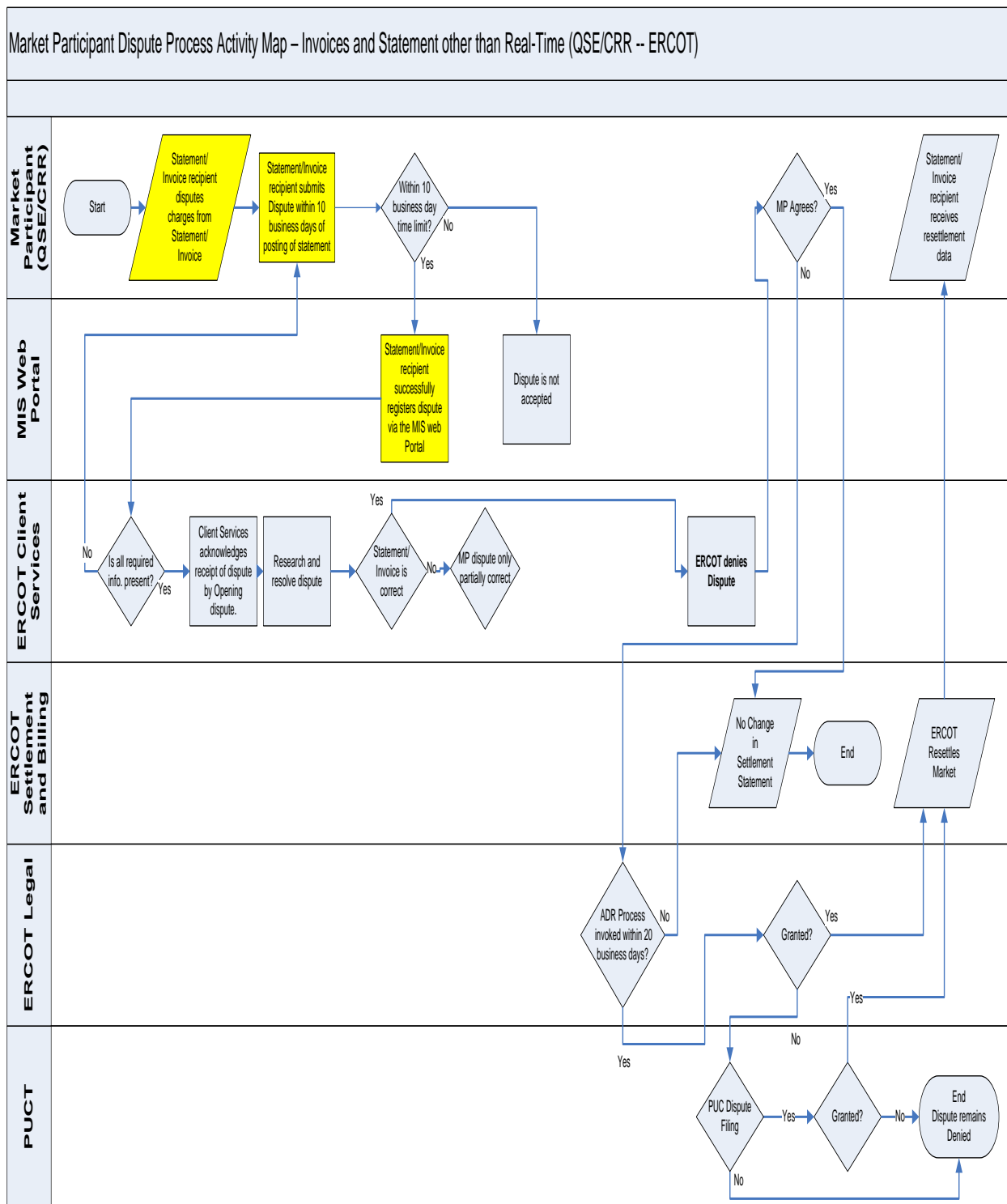


Figure 4: Process for a Denied Dispute



11.1.2 Settlement Calendar

- (1) The Settlement Calendar provides the dates by which ERCOT will post, process payments, and administer disputes for Settlement Statements and Invoices, including:
 - (a) Settlement Statements for the DAM and RTM; and
 - (b) DAM, RTM, Late Fee, CRR and CRR Auction Revenue Distribution (CARD).
- (2) The Settlement Calendar is provided as an extract and can be found on the MIS Public Area under Settlements Information and on the ERCOT website. Supporting information for the Settlement Calendar (i.e. the Data Definition Language (DDL) and Extensible Markup Definitions) are also available on both the MIS Public Area and the ERCOT website.

11.1.3 Dispute Access

- (1) There are two methods available for filing a dispute, MIS Web Portal and Application Programmatic Interface (API).
 - (a) MIS Web Portal – The web portal user interface utilizes the Market Participant’s Digital Certificate for authentication. The disputes area can be found by navigating to the on Markets/Settlements landing page or the applications home page. From either page, you can open the dispute application, based on roles, Create Nodal Settlement Dispute or Find Nodal Settlement Disputes.

Market Participants also have the ability to search for or view disputes using the ‘Find Nodal Settlement Disputes’ function on the Graphic User Interface (GUI). Disputes may be viewed and searched for by dispute IDs and various other criteria.
 - (b) API – Allows you to utilize a third-party application to submit your disputes to and from ERCOT. See the External Interfaces Specification (EIP) document on the ERCOT.com website for the API technical requirements.

11.1.4 Dispute Items

- (1) The following are a list of the statement and Invoice items that can be disputed. For Invoices, the items not listed on the statement can be disputed, such as interest.
 - (a) DAM Statement;
 - (b) DAM Resettlement Statement;
 - (c) DAM Invoice;
 - (d) DAM Late Fee Invoice;
 - (e) RTM Initial Statement;

- (f) RTM Final Statement;
- (g) RTM True-Up Statement;
- (h) Any RTM Resettlement Statement issued after the RTM True-Up Statement;
- (i) RTM Invoice;
- (j) RTM Uplift Invoice;
- (k) CRR Auction Invoice;
- (l) CARD Invoice; and
- (m) CRR Balancing Account Invoice.

11.1.5 Valid Dispute Statuses and Resolutions

An automatic Notification will be sent to the disputing Entity if there is a change in the dispute resolution or dispute status.

- (a) Statuses:
 - (i) Not Started – The initial status of the dispute when it is submitted to ERCOT.
 - (ii) Open – ERCOT has begun to work on the issue.
 - (iii) Alternative Dispute Resolution (ADR) – The Market Participant begins the ADR process once ERCOT has denied a dispute.
 - (iv) Closed – The dispute has been resolved.
 - (v) Withdrawn – Market Participant withdraws the dispute.
- (b) Resolutions:
 - (i) Granted – ERCOT grants the dispute and the adjustments display on the next Settlement Statement for the Operating Day.
 - (ii) Granted with Exceptions – ERCOT grants a partial adjustment of the disputed amount. The Market Participant is notified of the exception(s).
 - (iii) Denied – ERCOT rejects the dispute. An automatic Notification will be sent to the disputing Market Participant.

11.1.6 Dispute Reporting

ERCOT will post a summary level dispute report and a Market Participant specific dispute extract on the MIS Certified Area.

- (a) Market Participant Dispute Extract – This certified extract provides QSEs and CRR Account Holders with the current status of all of their Entity specific disputes that are not closed or withdrawn, as well as all disputes closed or withdrawn within the last 120 days.
- (b) ERCOT Summary Dispute Report – This report is a summary by Operating Day , status and market type (DAM and RTM) with resolution and count of disputes, as disputes move to a ‘Closed’ or ‘Withdrawn’ status, the data will remain available on the report for 30 days before’ rolling off’.

11.2 Data Extract Variances

11.2.1 Overview

- (1) The Data Extract Variance or “DEV” is a type of MarkeTrak used to assist in the expedited resolution of Electric Service Identifier (ESI ID) level data variances between ERCOT and Market Participant systems. The DEV should only be utilized after transactions have been attempted by comparing the information provided in the daily ERCOT ESI ID Service History & Usage Extract (727 Data Extract) and the Market Participants internal system data. The ESI ID Service History & Usage Extract is provided by ERCOT through the Market Information System (MIS). The Data Definition Language (DDL) description file for this extract is located on the ERCOT website under DDLs. Manual intervention will only be accepted after all other resolution paths have been exhausted.
- (2) If a variance submitted according to the MarkeTrak Users Guide is not resolved prior to the True-Up Settlement, a Market Participant may seek correction of the ESI ID service history, usage information and resettlement pursuant to the provisions of Protocol Section 20, Alternative Dispute Resolution Procedure. The True-Up Settlement timelines and variance request deadlines are available on the True-Up Settlement and Variance Request Calendar located on the ERCOT website.
- (3) For more information on types and subtypes of DEV issues and the DEV resolution process, refer to the Retail Market Guide Section 7.2.3, MarkeTrak Data Extract Variance Processes, and the MarkeTrak Users Guide, Sections 5, DEV LSE, and 6, Non LSE DEV are available on the ERCOT website.
- (4) The MarkeTrak Users Guide can be found on the ERCOT website:
 - (a) Select Services.
 - (b) Select Client Services.
 - (c) Select MarkeTrak Information.

- (d) Select MarkeTrak Users Guide.

Commercial Operations Market Guide

Section 12: Renewable Energy Credits

August 1, 2010

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12 RENEWABLE ENERGY CREDITS

- (1) The State of Texas Renewable Energy Credit Trading Program is addressed in Protocol Section 14, State of Texas Renewable Energy Credit Trading Program.
- (2) In support of the State of Texas' goals related to installation of generating capacity from renewable energy technologies, ERCOT administers the Renewable Energy Credit (REC) Trading Program. As part of the REC Trading Program, each competitive Retail Entity with Load in Texas is assigned an annual REC requirement.

12.1 Purpose and History

- (1) The State of Texas Renewable Energy Credit (REC) Trading Program was developed as a result of legislative action in Senate Bill 7, Texas Electricity Energy Restructuring. The objective of this part of Senate Bill 7 was to increase the capacity of renewable resource generation in Texas to 2,880 MWs by the year 2009 from an already existing 880 MWs.
- (2) The State of Texas' REC Trading Program was extended and expanded on September 1, 2005 as a result of legislative action in Senate Bill 20, 79th Legislature, 1st Called Session (2005), which amended Public Utility Regulatory Act (PURA) § 39.904, relating to the *Goal for Renewable Energy*. Senate Bill 20 increased the goal of capacity of renewable resource generation in Texas to 5,880 MWs by 2015 and 10,000 MWs by 2025. Senate Bill 20 also stipulates a goal that 500 MWs of the target MWs will be from non-wind renewable generation. This goal is to further promote solar power and biomass technologies.
- (3) Due to the optimum locations of Wind-powered Generation Resources (WGRs) in Texas, transmission congestion can limit the flow of renewable generation to the ERCOT Transmission Grid. In July 2007, the Public Utility Commission of Texas (PUCT) announced its approval for additional transmission lines that can deliver 10,000 more MWs of renewable power by 2012. The goal of the Energy Transmission Plan is to increase transmission capacity to get clean energy from remote areas to cities. Competitive Renewable Energy Zones (CREZs) were designated in the optimum areas in the state and it is to these locations that electric transmission infrastructure will be constructed.

12.1.1 Public Utility Commission of Texas (PUCT)

For more information on the PUCT ruling and goals see P.U.C. SUBST. R. 25.173, Goal for Renewable Energy.

12.1.2 Renewable Resource Generation

Renewable resource generation is generation that is not derived from fossil fuels, waste products from fossil fuels, or waste products from inorganic sources. Renewable resource generation technology relies on an energy source that is naturally regenerated, for example, the sun, wind, geothermal, hydroelectric, tidal energy, biomass, and biomass-based waste products.

12.1.3 REC Trading Program Overview

- (1) The statewide Texas REC Trading Program applies to competitive Retail Entities that offer Customer Choice, as defined by the P.U.C. SUBST. R. 25.173, Goal for Renewable Energy, including:
 - (a) Retail Electric Providers (REPs);
 - (b) Opt-in Municipally Owned Utilities (MOUs) and distribution Cooperatives;
 - (c) Investor Owned Utilities (IOUs) that have unbundled pursuant to PURA Chapter 39, Restructuring of Electric Utility Industry.
- (2) Competitive Retail Entities are required to obtain and retire RECs based on their Load Ratio Share (LRS) of the competitive retail Load served in Texas, and the annual statewide REC mandate.
- (3) Any renewable resource generator, as defined by the P.U.C. SUBST. R. 25.173, in Texas can earn RECs.
- (4) The statewide Texas REC Trading Program is open to anyone wanting to trade (buy or sell) RECs.
- (5) Opt-out Notice – Beginning with the 2008 Compliance Period, a Customer receiving electrical service at transmission-level voltage (60 kV or higher or that receives electric service directly through a utility-owned substation that is connected to the transmission network at 60 kV or higher) who files an opt-out notice with the PUCT and provides the information to ERCOT for the applicable Compliance Period shall have its Load excluded from the Renewable Portfolio Standard (RPS) calculation. For detailed information about the opt-out notice exemption see P.U.C. SUBST. R. 25.173. Renewable resource generators wishing to participate are required to be certified by the PUCT. The PUCT certification forms are available at the PUCT's website at <http://www.puc.state.tx.us/electric/business/rec/rec.cfm>. See Protocol Section 14, State of Texas Renewable Energy Credit Trading Program, for reporting requirements of REC generators and REC offset generators and the process for the awarding of RECs.

12.1.3.1 Participant Responsibilities

Participant responsibilities for ERCOT, the PUCT, REC generators, competitive Retail Entities, and other Entities are described in Protocol Section 14, State of Texas Renewable Energy Credit Trading Program. Other Entities may participate if they are legal Entities in the State of Texas, sign an agreement with ERCOT to participate in the market, and establish a REC trading account with ERCOT.

12.1.4 REC Attributes and Uses

- (1) Attributes of RECs, including how they are defined and how they are described by vintage year, quarter, technology type, resource, facility identification, quantity, and REC

number, may be found in Protocol Section 14, State of Texas Renewable Energy Credit Trading Program.

- (2) RECs have a useful life of three Compliance Periods. A Compliance Period is a calendar year beginning January 1 and ending December 31 of a year in which RECs are required to be retired by a competitive Retail Entity. See the Protocol Section 14 for an example.
- (3) Uses for RECs include, but are not limited to:
 - (a) Annual RPS compliance requirements for competitive Retail Entities.
 - (b) Financial instrument tradable on the REC market.
 - (c) PUCT labeling initiative: RECs can be used for verification of advertising claims for green power programs.

12.1.5 REC Offsets

See Protocol Section 14, State of Texas Renewable Energy Credit Trading Program, for more information on how generators qualified for REC offsets prior to June 1, 2001 in the REC Trading Program.

12.2 Determining RPS Requirements for Retail Entities

As the Renewable Energy Credit (REC) Trading Program Administrator, ERCOT determines the annual Renewable Portfolio Standard (RPS) requirement for each competitive Retail Entity in Texas using the formulas set forth in Protocol Section 14, State of Texas Renewable Energy Credit Trading Program.

12.2.1 Timing for Notification of Final RPS Requirement (FRR) and Mandatory Retirement

- (1) As set forth in subsection (n)(1) of P.U.C. SUBST. R.25.173, Goal for Renewable Energy, ERCOT will notify each competitive Retail Entity of its total final adjusted RPS requirement for the previous Compliance Period on January 31st.
- (2) As set forth in subsection (n)(2) of P.U.C. SUBST. R.25.173, each competitive Retail Entity must submit to ERCOT a quantity of RECs equal to its Final RPS Requirement (FRR) for the previous Compliance Period by March 31st. This is done by retiring the RECs in the competitive Retail Entity's REC trading account.

12.2.2 ERCOT Reporting to the PUCT and PUCT Penalties and Enforcement

See Protocol Section 14, State of Texas Renewable Energy Credit Trading Program, for more information about ERCOT reporting to the Public Utility Commission of Texas (PUCT) and PUCT penalties and enforcement.

12.2.3 *Process for Determining RPS Requirements for Competitive Retailers*

- (1) First, a Statewide RPS Requirement (SRR) is determined, using the Annual Capacity Target (ACT), the number of hours in a year, 8,760 hours, and the Capacity Conversion Factor (CCF). Plus, the Compliance Premiums used for the previous year's mandate are added back into the SRR. See Section 12.2.4, Public Data, below for more information on the CCF.
- (2) Second, a Preliminary RPS Requirement for each competitive Retail Entity is determined, using the SRR, the sales of the specific competitive Retail Entity, Customer Retail Sales (CRSRES), in MWhs, to Texas Customers during the Compliance Period excluding opt-out noticed Customer Loads, and the Total Sales (TS) of all competitive Retail Entities, in MWhs, to Texas Customers during the Compliance Period, excluding opt-out noticed Customer Loads. The sum of the Preliminary RPS Requirement for all competitive Retail Entities will equal the SRR.
- (3) Third, ERCOT determines the Adjusted RPS Requirement (ARR) due to offsets assigned to competitive Retail Entities, using the Preliminary RPS Requirement and the Total Offsets. The competitive Retail Entity is entitled to Eligible Offsets (EOs) received during the Compliance Period. ERCOT also determines the Total Usable Offsets (TUO), using the SRR and the sum of all of the ARR's.
- (4) Last, ERCOT determines the FRR for each competitive Retail Entity, using the ARR, TUO, CRSRES, TS, and any previous year's adjustments.
- (5) This is an iterative process that will solve until the optimal allocation is reached with all FRRs resolved to the nearest whole REC.

12.2.4 *Public Data*

A Texas REC trading account is not required to access the following public data:

- (1) Total Competitive Energy Sales in Texas

The Total Competitive Energy Sales in Texas can be found at <https://www.texasrenewables.com> under "Public Reports" under "Load" is the Total Competitive Energy sales in Texas. Total Competitive Energy Sales is the total Un-Adjusted Metered Load (AML) of all competitive retail sales of competitive Retail Entities (in MWh) to Texas Customers. The Load meter data is provided by year, both monthly and year-to-date, and is updated each month by ERCOT. The posted values will change as Load changes with consecutive settlements and will become constant when used in the FRR calculation.

- (2) Current Capacity Conversion Factor (CCF)

ERCOT revises the CCF every two years. The CCF is used in the calculation to determine the SRR. The SRR is used in the calculations to determine the Preliminary RPS Requirement for competitive Retail Entities, the TUOs, and the FRR. The current

CCF may be found at <https://www.texasrenewables.com> located on the REC Message Board.

(3) Quarterly/Annual Renewable Energy Generation in Texas by Technology Type

The Quarter & Annual Renewable Energy Generation in Texas by Technology Type can be found at <https://www.texasrenewables.com> under Public Reports under Generator is the Quarter & Annual Renewable Energy Generation in Texas by Technology Type. Other Public Information available includes:

- (a) List of account holders;
- (b) Accounts by type;
- (c) Accounts by technology type;
- (d) REC generators, repowered Facilities;
- (e) Existing/New Capacity;
- (f) Quarter and Annual Renewable Energy Generation in Texas by technology type; and
- (g) REC message board.

12.3 Texas REC Trading Program and User's Guide

- (1) The [texasrenewables.com](https://www.texasrenewables.com) website provides a secure portal for Renewable Energy Credit (REC) Trading Account Holders to manage their REC inventory. Account holders may view, sort, batch or singly identify RECs to transfer or retire. All activities are available online, including account registration. There are no limits on the number of REC trading accounts. All data is available online for at least three years.
- (2) The [texasrenewables.com](https://www.texasrenewables.com) website may be accessed directly at <https://www.texasrenewables.com> or from the ERCOT website under "VIEW OTHER ERCOT WEBSITES" and Renewable Energy Credits.

12.3.1 Texas REC User's Guide

Texas REC User's Guide is available on the [texasrenewables.com](https://www.texasrenewables.com) website, under the headings Public Reports and Help Guide. The User's Guide outlines the functionality of the REC Trading Program including account management, generator, and aggregator registration and how to submit generator meter data.

12.3.2.1 Micro-generators and REC Aggregators

Registration and the reporting of production meter data for micro-generators and REC aggregators are addressed in paragraph (q) of P.U.C. SUBST. R.25.173, Goal for Renewable

Energy. Micro-generators are encouraged to find an aggregation company to associate themselves with, however, if they choose, they may register and participate on their own.

12.3.2 REC Trading Program Account Holder Assistance

- (1) Contact the ERCOT RPS Administrator via email, Info@ercot.com for REC Trading Account Holder assistance.
- (2) The Help function, located at the top right of the screen, in the Texas-REC Trading Program is an excellent online reference.

Commercial Operations Market Guide

Appendix A: Market Notice Communication Process

December 1, 2013

Appendix A: Market Notice Communication Process

- (1) Definition of Terms - For the purposes of Appendix A, Market Notice Communication Process, the following definitions prevail:
 - (a) **Business Area** – Indicates the type of Market Participant affected (Market-Wide, Wholesale, or Retail (see item (3), Table 1, ERCOT System/Service Affected, below).
 - (b) **E-mail Notification Subscription Lists** – To subscribe to the appropriate list on the ERCOT website (see item (4)(d), Table 8, E-mail Notification Subscription Lists, below).
 - (c) **Escalation** – Escalation of Notifications is based on duration of event and cross-system impact.
 - (d) **Notice Content** – Dependent on the phase of the Notice, duration and complexity of the issue. Minimal content will include the service that is unavailable and may include the time the issue was identified, if known. Standard content provides start and stop times for the issue, actions taken to resolve the issue or progress of service restoration and follow-up information, if needed. All Notification timing refers to calendar days, unless specified as Business Days.
 - (e) **Phases of Notification** – Communication phase
 - (i) Initial Notice may contain only minimal content which is defined as the service that is not available and the time the issue was identified. Any subsequent Notice may include previous Notices associated with the Initial Notice in chronological order.
 - (ii) Follow-up Notices may have multiple updates depending on duration of event and will contain progress reports and impacts.
 - (iii) Completion Notice will provide a timeline for the end of the event but may not contain root cause analysis or actions taken to restore service.
 - (iv) Final Notice will provide root cause and describe the mitigation action taken to resolve the issue within seven days following the end of the event.
 - (v) Lessons Learned and Mitigation Action Notice will be sent at the end of the event plus a reasonable time for completion of root cause analysis, not to exceed 45 days without at least an interim report.
- (2) ERCOT Service Level Agreement (SLA) Outage/Processing Impact Notification Types

- (a) **Planned Scheduled Release** – fourth weekend of each month – 17:00 Saturday until 00:00 Monday (31 hours) as defined in the Retail Market IT Services Service Level Agreement, located on the ERCOT website.
- (b) **Planned Maintenance Outage** – first and second Sunday of each month – 06:00 until 21:00 (15 hours) and third and fifth Sunday of each month – 08:00 until 20:00 (12 hours) as defined in the Retail Market IT Services SLA located on the ERCOT website.
- (c) **Unplanned Outage or Business Processing Impacts** – unplanned events that occur during Business Hours or during non-Business Hours. Exceptions for extended maintenance and release windows will be requested by ERCOT at a Commercial Operations Subcommittee (COPS) and/or Retail Market Subcommittee (RMS) meeting (as appropriate) prior to the extended outage. Unplanned retail and wholesale system outages will be identified on the ERCOT website under the “View Data And Reports” category heading. A red flag icon will appear immediately to the right of the “Notices” header when an ERCOT retail or wholesale system is currently unavailable. This flag will be removed when the retail or wholesale system has been restored. If the outage occurs outside of normal Business Hours, ERCOT will generate an automated Market Notice that will communicate the unplanned system outage to the market. If the outage occurs during normal Business Hours, ERCOT may generate an automated Market Notice that will communicate the unplanned system outage to the market. The system-generated Notices will be sent to the Notice_Release_Retail@lists.ercot.com and/or the Notice_Release_Wholesale@lists.ercot.com mailing lists. ERCOT will generate a Follow-up Notice during normal business hours in these instances if the outage lasts 30 minutes or longer.
 - (i) **Data Extract and Report Incidents** – Certain extracts and reports are subject to a SLA. These extracts and reports can be found in the Extract and Report Information Matrix posted in the Communications and Settlements Working Group (CSWG) section of the ERCOT website. This file contains where each extract or report is posted (delivery point), whether it is public or Market Participant-specific, on what timeline (how often posted), and the assigned SLA Level.
 - (A) Incidents impacting the timeliness, completeness, or accuracy of SLA Level-1 data extracts and reports are reported in the ERCOT IT Incident Summary Data Extracts & Reports and IT Applications Services). The log will be updated monthly and made available on the ERCOT website by the 15th day of the following month.
 - (B) For incidents involving SLA Level-1 data extracts impacting ten or more Market Participants or as determined by ERCOT to warrant full market notification, a Market Notice will be sent. Incidents

involving SLA Level-1 data extracts will be reported via the Market Notice process in the following manner:

- (1) A Market Notice will be sent out if incident involves extracts posted with missing data or incorrect data (completeness or accuracy). See item (1)(d) above for details on content.
- (2) A Market Notice will be sent if incident involves timeliness of SLA Level-1 extract later than 23:59 or otherwise specified by the Protocols. Such incidents will be reported on the Extract and Report Incident Log on a monthly basis.
- (3) All incidents not reported via the Market Notice process will be included in the ERCOT IT Incident Summary Data Extracts & Reports and IT Applications Services.
- (4) These incidents will be identified on the ERCOT website under the “View Data And Reports” category heading. A red flag icon will appear immediately to the right of the “Notices” header to facilitate communication of the issue to the market. This flag will be removed when the extract issue has been resolved. If the extract issue occurs outside of normal Business Hours, ERCOT will generate an automated Market Notice that will communicate the issue to the market. These automated Notices will be sent to the Notice_Release_Retail@lists.ercot.com and/or the Notice_Release_Wholesale@lists.ercot.com mailing lists. ERCOT will generate a Follow-up Notice during normal Business Hours to provide additional details when warranted.

- (ii) For incidents involving data extracts other than SLA Level-1, ERCOT will determine whether to report via Market Notice. All incidents, including those not reported via Market Notice process, will be reported.

(3) Coding of Notices

Notice Codes – Market Notices that are not system generated will be given a unique identification code that identifies, at a high level, the impacted Market Segment (retail, wholesale or market), the date and sequence of the Notice and the number of Notices in a series a particular Notice represents. This code will appear in the Notice Type section of the Notice (See Table 2, Market Notice Tracking Codes).

| Table 1: ERCOT Service/System Affected | | | |
|---|-----------------------|--------------------|--------------------|
| Business Area | Service/System | Description | Requirement |
| | | | |

| | | | |
|-------------|---|---|---|
| Market-Wide | Data Retrieval | Public and private extracts. | |
| Market-Wide | Data Storage | Storage of archive data used for extracts. | |
| Market-Wide | Digital Certificate Administration | Ability for User Security Administrators (USAs) to enroll, pick up, renew and delete Digital Certificates. | |
| Market-Wide | E-mail Communications | Phone call updates to primary contacts if e-mail is down. | |
| Market-Wide | Forecasted Profiles | Load Profile Forecasts, back-casts (operational postings). | Protocol Section 18.3.3, Load Profiles |
| Market-Wide | Forecasted Transmission Loss Factors (TLF) | Forecasted TLF for each 15 minute settlement interval of each Operating Day. | Protocol Section 13.2.1, Forecasted Transmission Loss Factors |
| Market-Wide | ERCOT-Polled Settlement (EPS) Metering | Polling of EPS Meters. | Protocol Section 10, Metering |
| Market-Wide | Commercial Programmatic Interface | PI, commercial Application Programmatic Interface (API), PI App, automatic download of commercial information. | |
| Market-Wide | Public Market Information | Public information required to be posted (Scheduling information, Ancillary Service information, other commercially significant information, current system conditions) | Protocol Section 12, Market Information System |
| Market-Wide | Renewable Energy Program | View, sort, batch, or singly identify Renewable Energy Credits (RECs) to transfer or retire. | Protocol Section 14, State of Texas Renewable Energy Credit Trading Program |
| Market-Wide | Congestion Revenue Right (CRR) information | Billing and invoicing of CRR, CRR Auctions and monthly information on Shift Factors. | Protocol Section 7, Congestion Revenue Rights |
| Market-Wide | Market Information System (MIS) | Service to provide access to Market Participant-specific information on ERCOT's portal, plus sub services. | Use most stringent criteria for all services under MIS. |
| Market-Wide | ERCOT Website | MIS. | |
| Market-Wide | Phone Lines | Commercial phone lines (example: Help Desk). | |
| Retail | Electronic Data Interchange (EDI) Electronic Delivery Mechanism/North American Energy Standards Board (NAESB) | Method used to connect and transmit electronic data. | NAESB Protocols require notification if delay of > 15 minutes |
| Retail | Retail Siebel Batch | Retail Siebel batch must complete by 0600 in order to meet guaranteed window for stacking. Expectation is Market Notice sent if batch does not complete by 0600. | |
| Retail | Retail Testing | Ability to provide services to the retail test flights. | |

| | | | |
|-----------|--|---|---|
| Retail | Retail Transaction Variances | Transactional issues and inquiries submitted to the MarkeTrak system. | |
| Retail | Retail Transaction Processing | Retail Transactions are processed by ERCOT during Retail Business Days/Hours. (Paperfree, Transaction Clearinghouse (TCH), Siebel). | The most stringent business processing timeline for retail transactions is one Retail Business Hour after processing the initiating transaction. (Protocol Section 15, Customer Registration) |
| Retail | MIS Retail Components | Delete CSA, Establish CSA, Create Drop, Create Enrollment, Create Move-In, Create Move-Out, Find ESI ID, Find Transactions. | |
| Wholesale | Market Operations API | Scheduling Ancillary Service and energy, bids and information query via API, deployments and Notices. | |
| Wholesale | Market Operations Test Environment | Provide testing and qualifications to Market Participants. | Protocol Section 16, Registration and Qualification of Market Participants |
| Wholesale | Operational Notifications | Balancing Energy Service requirement, Ancillary Service Obligations, congestion Notifications, Energy Emergency Alert (EEA) Notifications. | |
| Wholesale | Operational Telemetry | Supervisory Control and Data Acquisition (SCADA), Real-Time telemetry. | |
| Wholesale | Transmission/ Generation Outage Requests | Transmission and generation Outage requests and information. | Protocol Section 3.1, Outage Coordination |
| Wholesale | Settlement Statement and Invoices | Creation, posting and collection of statements and Invoices. | Protocol Section 9, Settlement and Billing |
| Wholesale | Settlement Disputes/ Service Requests | Entry and retrieval of Settlement dispute from MIS, Create Service Request, Find Service Request. (This includes Electrical System Modifications Requests). | Protocol Section 9.14, Settlement and Billing Dispute Process |
| Wholesale | Market Operations MIS | Scheduling Ancillary Service and energy, bids and information query via MIS. | |
| Wholesale | Wide Area Network | Secure connectivity to ERCOT and hotline. | |

Table 2: Market Notice Tracking Codes

| | Unique Identifier | Notice Date | Sequence Number |
|------------------|---------------------------------|----------------------------|---------------------|
| System Generated | N/A | N/A | N/A |
| W = Wholesale | A = First topic Notice of a day | February 27, 2007 = 022707 | 01 = Initial Notice |

| | | | |
|-----------------|--|----------------------------|--------------------------------|
| R= Retail | B = Second topic Notice of a day | March 15, 2007 = 031507 | 02 = Second Notice (update) |
| M = Market-Wide | C = Third topic Notice of a day, <i>etc.</i> | April 3, 2007 = 040307 | 03 = Third Notice (update) |

(i) **Tracking Code Example 1:**

(A) R-A022707-01 (Retail, First topic Notice for February 27, 2007, initial Notice)

(B) R-A022707-02 (Follow-up same day)

(C) R-A022707-03 (Follow-up next day)

(ii) **Tracking Code Example 2:**

(A) R-B022707-01 (Retail, Second topic for February 27, 2007, initial Notice)

(iii) **Tracking Code Example 3:**

(A) M-A022707-01 (Market-Wide, First topic for February 27, 2007, initial Notice)

(B) W-A022707-01 (Wholesale, First topic for February 27, 2007, initial Notice)

(4) Sample Notices

(a) **System Generated Notice**

Subject: INITIAL NOTICE - System Outage – Market Information System

NOTICE DATE: 12/29/08 13:10:39

NOTICE TYPE: Initial Market Information System Notice

INTENDED AUDIENCE: Load Serving Entities (LSEs) and Transmission and /or Distribution Service Providers (TDSPs)

DAY AFFECTED: 12/29/08 13:00:04

DESCRIPTION: ERCOT is currently experiencing an outage of Market Information System.

ERCOT is working on resolving this issue and will provide additional information as it becomes available.

CONTACT: If you have any questions, please contact your ERCOT Account Manager. You may also call the general ERCOT Client Services phone number at (512) 248-3900 or contact ERCOT Client Services via e-mail at ClientServices@ercot.com.

If you are receiving e-mail from an ERCOT distribution list that you no longer wish to receive, please follow this link in order to unsubscribe from this list: <http://lists.ercot.com>.

(b) Non System Generated Notice

Subject: R-A022110-01 Planned Outage –Retail

NOTICE DATE: February 21, 2010

NOTICE TYPE: R-A022107-01 Planned Outage – Retail

SHORT DESCRIPTION: ERCOT has scheduled a Maintenance Outage on Sunday, March 4, 2010

INTENDED AUDIENCE: Market Participants

DAY AFFECTED: Sunday, March 4, 2010 17:00 to 18:00

LONG DESCRIPTION: ERCOT has a planned Maintenance Outage scheduled from 17:00 to 18:00 on Sunday, March 4, 2010.

ADDITIONAL INFORMATION: During the Outage the following functions will be affected.

CONTACT: If you have any questions, please contact your ERCOT Account Manager. You may also call the general ERCOT Client Services phone number at (512) 248-3900 or contact ERCOT Client Services via e-mail at ClientServices@ercot.com.

If you are receiving e-mail from an ERCOT distribution list that you no longer wish to receive, please follow this link in order to unsubscribe from this list: <http://lists.ercot.com>.

(c) Non System Generated Notice - Update

Subject: R-A022107-02 UPDATE: Planned Outage –Retail

NOTICE DATE: February 28, 2007

NOTICE TYPE: R-A022110-02 UPDATE: Planned Outage – Retail

SHORT DESCRIPTION: ERCOT has not changed plans to have a scheduled Maintenance Outage on Sunday, March 4, 2010

INTENDED AUDIENCE: Market Participants

DAY AFFECTED: Sunday, March 4, 2010 from 17:00 to 18:00

LONG DESCRIPTION: ERCOT has a planned Maintenance Outage scheduled from 17:00 to 18:00 PM on Sunday, March 4, 2010.

ADDITIONAL INFORMATION: During the Outage the following functions will be affected:

CONTACT: If you have any questions, please contact your ERCOT Account Manager. You may also call the general ERCOT Client Services phone number at (512) 248-3900 or contact ERCOT Client Services via e-mail at ClientServices@ercot.com.

If you are receiving e-mail from an ERCOT distribution list that you no longer wish to receive, please follow this link in order to unsubscribe from this list: <http://lists.ercot.com>.

(d) **Market Participant Notice**

Subject: [Market Participant Name] Planned Outage, Unplanned Outage, Informational

NOTICE DATE: [Date Notice Sent]

NOTICE TYPE: Initial, Follow-Up, Final

SHORT DESCRIPTION: [Relevant to notice type including either system or business process affected]

INTENDED AUDIENCE: [ERCOT and/or CRs and/or TDSPs]

DAY AFFECTED: [Date and Time of Initial Incident]

LONG DESCRIPTION: [Short Description plus Known Relevant Details plus Affected System Functionality]

SPECIFIC INSTRUCTIONS: [Optional]

[i.e.: “Move In Processing affected, please use Retail Market Guide, Section 9, Appendices A1, Competitive Retailer Safety-Net Request, until further notice.”]

ADDITIONAL INFORMATION/COMMENTS: [Optional]

CONTACT: [“If you have any questions, please contact [contact information – email address and/or phone number]”].

Table 3: Planned Release Notifications

| Timing of Market Notification | Phases of Notice | Notice Content | Listserv |
|---|---|--|--|
| 30 days prior to release | I – Initial General Market Notification | Standard content plus background material. | Distribution lists and primary and secondary contacts. |
| Ten days prior to release | II – Follow-Up | Same as previous. | Same as previous. |
| One day prior to release | II – Follow-Up | Same as previous. | Same as previous. |
| End of event as soon as possible (ASAP) | III – Completion | Completion. | Same as previous. |

Table 4a: ERCOT Planned Maintenance Notifications

| Timing of Market Notification | Phases of Notice | Notice Content | Listserv |
|---|---|--|--|
| Target three days prior to maintenance. | I – Initial General Market Notification | Standard Content plus background material. | Distribution lists and primary and secondary contacts. |
| Target one day prior to maintenance. | II – Follow-Up | Same as previous. | Same as previous. |
| End of event ASAP. | III – Completion | Completion. | Same as previous. |

Table 4b: Market Participant Planned Maintenance Notifications

| Timing of Market Notification | Phases of Notice | Notice Content | Listserv |
|--|---|--|---|
| Target three Days prior to maintenance | I – Initial General Market Notification | Standard Content + background material | RMS Listserv and/or other distribution lists as appropriate |
| Target one day prior to maintenance | II –Follow-Up | Same as previous | Same as previous |
| End of event ASAP | III – Completion | Completion | Same as previous |

Table 5a: ERCOT Business Processing Failures Notifications

| Timing of Market Notification | Phases of Notice | Escalation | Notice Content | Listserv |
|--------------------------------------|---|-------------------|---|--|
| Business Day 1 ASAP. | I – Initial General Market Notification | None. | Minimal. | Distribution lists and primary and secondary contacts. |
| By close of business (COB) Day 2. | II – Follow-Up | None. | Standard content plus e-mail applicable Market Participant spreadsheets as available. | Same as previous, plus Market Participant specific. |

| Table 5a: ERCOT Business Processing Failures Notifications | | | | |
|---|-------------------------|-------------------|---------------------------------|---|
| Timing of Market Notification | Phases of Notice | Escalation | Notice Content | Listserv |
| End of event occurring before escalation begins. | IV – Final | None. | Normal processing /root cause. | Same as previous, plus Market Participant specific |
| By COB Day 3. | II – Follow-Up | Yes. | Same as previous, plus updates. | Same as previous, plus Technical Advisory Committee (TAC) Subcommittees, plus TAC, and Market Participant specific. |
| By COB Day 4. | II - Follow-Up | Yes. | Same as previous, plus updates. | Same as previous. |
| Business Day 5 and beyond. | II –Follow-Up | None. | Market Participant specific. | Market Participant specific. |
| End of event. | IV – Final | Yes | Normal processing /root cause. | Same as last General, plus escalation lists if required. |

| Table 5b: Market Participant Unplanned System Outages or Business Processing Failures Notifications | | | | |
|--|---|------------------------------------|--|---|
| Timing of Market Notification | Phases of Notice | Escalation | Notice Content | Listserv |
| Business Day 1 ASAP | I – Initial General Market Notification | None | Minimal | RMS Listserv and/or other distribution lists as appropriate |
| By close of business (COB) Day 1 | II –Follow-Up | None | Standard content | Same as previous |
| By COB Day 2 | II –Follow-Up | None | Standard content | Same as previous |
| By COB Day 3 and beyond | II – Follow-Up | None | Same as previous + updates | Same as previous |
| End of Event ASAP | IV – Final | None | Normal Processing /Root Cause | Same as previous |
| End of Event + Reasonable Time for Completion of Root Cause Analysis not to exceed 45 days without at least an interim report. | V – Lessons Learned & Mitigation Action | Optional – TAC Subcommittee Update | Same as previous + lessons learned and mitigation actions; additional follow-up communications | Same as previous |

| Table 6: Notification of Outage During Business Hours |
|--|
|--|

| Duration of Outage | Timing of Market Notification | Phases of Notice | Escalation | Notice Content | Listserv |
|--------------------|---|--|----------------------------|---|--|
| >= 30 minutes | ERCOT logs outage, posts instance to ERCOT website (http://www.ercot.com/services/comm/mkt_notices/outage_notices/index), and will send a system generated Notice to Notice_Release_Retail@lists.ercot.com and/or Notice_Release_Wholesale@lists.ercot.com . | | | | |
| | Business Day 1 within two hours after ERCOT acknowledges outage. | I – Initial Notification | None. | Minimal. | Distribution lists and primary and secondary contacts. |
| | By COB Day 1. | II – Follow-Up | None. | Standard content. | Same as previous. |
| | Business Day 2 by 0900. | II – Follow-Up | None. | Same as previous, plus updates. | Same as previous. |
| | ASAP after restoration. | III – Completion | Same as last message sent. | Minimal. | Same as last message sent. |
| | End of outage. | III – Completion | None. | Service restored. | Same as last message sent. |
| | By COB Day 2. | II – Follow-Up and initiate daily conference calls to begin on day 3 | Yes. | Same as previous, plus conference call information. | Same as previous, plus TAC subcommittees and TAC. |
| | Business Day 3 by 0900. | II – Follow-Up | Yes. | Same as previous. | Same as previous. |
| | By COB Day 3. | II – Follow-Up | Yes. | Same as previous. | Same as previous. |
| | End of outage. | III – Completion | Same as last message sent. | Service restored. | Same as last message sent. |

**Table 7: Notification of Outage Outside of Business Hours
(Does Not Include Saturday(s))**

| Duration of Outage | Timing of Market Notification | Phases of Notice | Escalation | Notice Content | Listserv |
|--------------------|---|---|------------|-------------------|--|
| >= 30 minutes | ERCOT logs outage, posts instance to ERCOT website, and sends a system generated Notice to Notice_Release_Retail@lists.ercot.com and/or Notice_Release_Wholesale@lists.ercot.com . If ERCOT IT and Business, Client Services determines a weekend/holiday outside of Business Hours event to be of major significance, Initial Notices will be sent as soon as possible with follow-up Notifications as necessary. | | | | |
| | Business Day 1 by 0900. | I – Initial Notification | None. | Minimal. | Distribution lists and primary and secondary contacts. |
| | Business Day 1 – If outage restoration complete by 0900, then by 1200. | I – Initial Notification and IV - Final | None. | Standard content. | Same as previous. |

| | | | | | |
|--|-------------------------|---|----------------------------|--|---|
| | By COB Day 1. | II – Follow-Up | None. | Standard content. | Same as previous. |
| | Business Day 2 by 0900. | II – Follow-Up | None. | Same as previous, plus updates. | Same as previous. |
| | ASAP after restoration. | III – Completion | Same as last message sent. | Minimal. | Same as last message sent. |
| | End of outage. | III – Completion | None. | Service restored. | Same as last message sent. |
| | By COB Day 2. | II – Follow-Up and initiate daily conference calls to begin on day 3. | Yes. | Same as previous plus conference call information. | Same as previous, plus TAC subcommittees and TAC. |
| | Business Day 3 by 0900. | II – Follow-Up | Yes. | Same as previous. | Same as previous. |
| | By COB Day 3. | II – Follow-Up | Yes. | Same as previous. | Same as previous. |
| | End of outage. | III – Completion | Same as last message sent. | Service restored. | Same as last message sent. |

Table 8: E-mail Notification Subscription Lists

| List Name | List Title | List Description |
|--|---|--|
| Market and Power Operations Bulletins | Notice_Bulletins@lists.ercot.com | Distribution list for Market Operations Bulletins, Power Operations Bulletins. |
| Contracts/Request for Proposal (RFP) | Notice_Contracts@lists.ercot.com | Notices of Requests for Proposal and Requests for Information that are issued by ERCOT and contracted services such as Reliability Must-Run (RMR) and Black Start. |
| Notice CRR | Notice_CRR@lists.ercot.com | Notices concerning CRRs. |
| Extracts -Retail | Notice_Extracts_Retail@lists.ercot.com | Notices of interest to retail parties utilizing data extracts and reports, including procedures, postings or changes. |
| Extracts Wholesale | Notice_Extracts_Wholesale@lists.ercot.com | Notices of interest to wholesale parties utilizing data extracts and reports, including procedures, postings or changes. |
| Notice_General | Notice_General@lists.ercot.com | Notices of a general nature intended for distribution to the ERCOT market, but not |

| | | |
|---|--|--|
| | | applicable to any other specific mailing list. |
| Legal Notification | Notice_Legal_Notifications@lists.ercot.com | Notices to the ERCOT market of a legal nature |
| Operations | Notice_Operations@lists.ercot.com | Notices concerning power operations and technical issues at ERCOT |
| NPRR/SCR | Notice_PRR_SCR@lists.ercot.com | Notices of system change that include the implementation of Nodal Protocol Revision Requests (NPRRs) or System Change Requests (SCRs). |
| System Outages/Releases – Retail | Notice_Release_Retail@lists.ercot.com | Notices concerning system outages, upgrade releases, and system-generated Notices that affect retail market functions. |
| System Outage/Releases – Wholesale | Notice_Release_Wholesale@lists.ercot.com | Notices concerning system outages or upgrade releases, testing, and system generated Notices that affect wholesale market functions. |
| Retail Processing | Notice_Retail_Processing@lists.ercot.com | Notices concerning the processing of retail transactions. |
| Settlements – Public | Notice_Settlements@lists.ercot.com | Notices concerning the wholesale Settlements issued by ERCOT that are public in nature. |
| Testing – Retail | Notice_Testing_Retail@lists.ercot.com | Distribution list for information regarding Market Participant testing with respect to retail test flights and retail systems testing. |
| Training | Notice_Training@lists.ercot.com | Distribution list for Notices of ERCOT-provided training events. |

Table 9: Additional E-mail Notification Lists Matrix

| | |
|--|---|
| Table 9: Additional E-mail Notification Lists Matrix | |
| External Mailing List: Non-system-generated Notices sent to these lists..... | Internal Mailing List:will also be sent to these ERCOT maintained lists |
| General | Primary Contacts, as appropriate |
| System Outages/Releases/Testing – Wholesale | Qualified Scheduling Entity (QSE) Project Managers, QSE Primary Contacts as necessary |

| Table 9: Additional E-mail Notification Lists Matrix | |
|---|---|
| System Outages/Releases – Retail | Retail Market Call (RMC), Competitive Retailer Primary Contact (CRPC), Load Serving Entity (LSE) Primary Contacts, Transmission and/or Distribution Service Provider (TDSP) Primary Contact |
| Testing – Retail | RMC, CRPC, TDSP Primary Contact, Texas Test Plan Team (TTPT), LSE Primary Contacts) |
| Retail Processing | RMC, CRPC, TDSP Primary Contact, LSE Primary Contacts |
| Extracts – Wholesale | QSE Primary Contacts, QSE Financial Contacts, Congestion Revenue Right Account Holder (CRRAH) Primary Contacts, CRRAH Financial Contacts |
| Extracts – Retail | RMC, CRPC, TDSP Primary Contact, LSE Primary Contacts |
| Legal Notification | QSE, LSE, Resource Entities, TDSP Primary Contacts, as appropriate |
| CRR | QSE, CRRAH, LSE, Resource Entities, TDSP Primary Contacts, as appropriate |
| NPRR/SCR | QSE, LSE, Resource Entities, TDSP Primary Contacts, as appropriate |
| Settlements – Public | QSE and CRRAH Primary Contacts, QSE, CRRAH Financial Contacts |
| Contracts/Request for Proposal (RFP) | QSE, LSE, Resource Entities, TDSP Primary Contacts, as appropriate |
| Operations | QSE Project Managers, QSE Primary Contacts as necessary |
| Market and Power Operations Bulletins | QSE, LSE, Resource Entities, TDSP Primary Contacts, as appropriate |
| Training | QSE, CRRAH, LSE, Resource Entities, TDSP Primary Contacts |