

Control Number: 36141



Item Number: 6924

Addendum StartPage: 0

#### PROJECT NO. 36141

RETAIL PERFORMANCE MEASURE REPORTS PURSUANT TO PUC SUBST. R. §25.88 BEGINNING 3<sup>RD</sup> **QUARTER 2008** 

PUBLIC UTILITY COMMISSION § §

**OF TEXAS** 



#### ERCOT'S PERFORMANCE MEASURES REPORT FOR THE FIRST QUARTER OF 2020

Electric Reliability Council of Texas, Inc. (ERCOT) files its Report for the First Quarter of 2020 pursuant to 16 Texas Administrative Code (TAC) §§ 25.362(i)(3)(B) and 25.88. ERCOT's Performance Measures Report is appended as Attachments A1 - A9.

ERCOT hereby provides notice that attachments marked with an asterisk contain information which is proprietary and confidential and is being provided in accordance with Commission policy set forth in 16 TAC §§ 22.71 and 25.362. The following attachments comprise this report:

| Document Description                                      | Attachment |
|---|------------|
| Attestation   | Al         |
| Analysis of Performance Measures Report 1st Quarter 2020  | A2         |
| Active ESI IDs for 1st Quarter 2020                       | A3*        |
| Total Market Report 1st Quarter 2020                      | A4         |
| IT Incident Summary 1st Quarter 2020                      | A5         |
| IT System Availability 1st Quarter 2020                   | A6         |
| Unauthorized Changes 1st Quarter 2020                     | A7*        |
| TDSP Summary 1st Quarter 2020                             | A8*        |
| Observed Selection of Electric Providers 1st Quarter 2020 | A9         |

#### Respectfully Submitted,

#### /s/ Gibson Hull

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ERCOT 7620 Metro Center Drive Austin, Texas 78744

ATTORNEYS FOR ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.





#### Attachment A 01 - Attestation Ruane - Q1 2020.docx

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#### **E-Signature Summary**

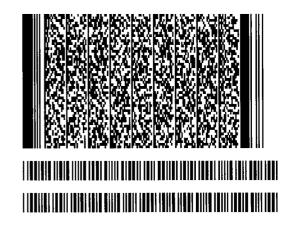
#### E-Signature 1: Mark Ruane (MR)

May 05, 2020 11·42·00 -8:00 [EED54A0BBCD0] [99.189.72.129] Mark.Ruane@ercot.com (Principal) (Personally Known)

#### E-Signature Notary: Amy L Loera (ALL)

May 05, 2020 11:42:00 -8:00 [BAB627825976] [99.189.72 129] amy.loera@ercot.com

I, Amy L Loera, did witness the participants named above electronically sign this document



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# Attachment A1 Project No. 36141 Performance Measures Report 1st Quarter 2020 Attestation

STATE OF TEXAS
COUNTY OF TRAVIS

**BEFORE ME**, the undersigned authority, Mark Ruane, who, being first duly sworn, deposes and states:

§

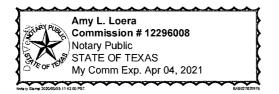
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"My name is Mark Ruane. I am employed as Director of Settlement, Retail Operations and Credit, for the Electric Reliability Council of Texas, Inc., having its principal place of business at 7620 Metro Center Drive, Austin, Texas. I am over the age of twenty-one and am competent to make the following attestation:

"I hereby attest that I have personal knowledge of the facts stated in ERCOT's Performance Measures Report for the first quarter of 2020, attached hereto, that I am competent to testify to them, and that I have the authority to submit this document on behalf of ERCOT. I further swear or affirm that the attached Performance Measures Report is, in my judgment and based upon my professional experience, true, complete and accurate and that any substantial material changes in such information will be provided to the Public Utility Commission of Texas in a timely manner. I hereby verify that an internal review was conducted to confirm the accuracy of the information contained in the attached Performance Measures Report."

Mark Ruane
Director of Settlement, Retail Operations and Credit

SUBSCRIBED AND SWORN TO BEFORE ME on \_\_\_\_\_\_\_\_. This notarial act was an online notarization.









Project 36141

### Retail Market Performance Measures Report Analysis Quarterly Report for First Quarter 2020

This first quarter report for 2020 contains a summary of the data included in Attachments A3 - A9 in accordance with 16 TAC 25.88. This report includes a comparison of the current quarter to the data and performance of ERCOT for the fourth quarter of 2019. Some of the data reported in Attachments A3 - A9 is proprietary and confidential information and is provided in accordance with Commission policy set forth in 16 TAC 22.71 and 16 TAC §25.362, where indicated.

#### Measure A-1: Customers Served by REPs

This measure reflects the number of customers served by REPs, by customer class, and includes the corresponding amount of load associated with those customers. Customer classes are Residential, Small Non-Residential, and Large Non-Residential. Data is aggregated for all REPs and then compared to the customers served by the REP affiliated with the TDU in each TDU area. The data provided for this measure is confidential and proprietary.

#### Measure A-2: Number of Active REPs

This measure reflects the number of REPs actively serving customers by TDU service territory and customer class.

The following documents include information responsive to Measures A-1 and A-2:

- a. *Count of ESI IDs* for January 31, 2020, February 29, 2020 and March 31, 2020, included as Attachments A3, contains the number of ESI IDs served by various REPs, as well as the demand level of those ESI IDs. It is possible to determine the demand level of 'individual customers' from some of the information; therefore these reports are confidential and proprietary. These files contain the following data:
  - Count of ESI IDs (their demand levels and load) for each REP, broken down by REP.

First Quarter 2020 1 April 6, 2020



#### Measure B-1: Customer Enrollment Success Rate

This measure examines the lifecycle and completion of technical retail transactions (Switch, Standard Move-In, and Same Day Move-In) within the timeframes specified in the ERCOT Protocols and/or TDU tariffs.

In the *Total Market Report* included as Attachment A4, the following data describes ERCOT's Protocol compliance volumes and percentages as required for Measure B-1.



#### **Protocol Compliance**

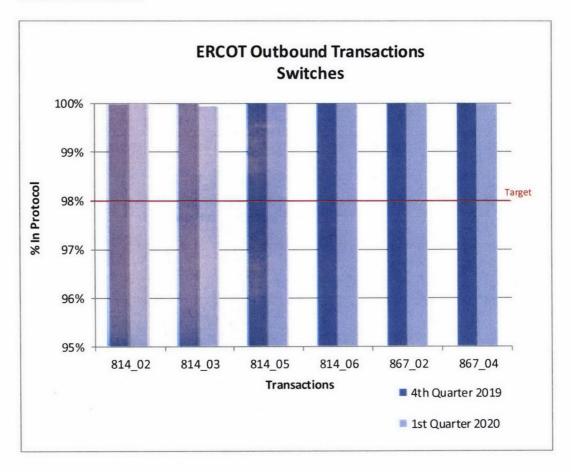
For this portion of the analysis, Performance Measures Export Reports and data were generated from ERCOT's DataTrak System for the first quarter of 2020. The reports provide the total volume and the percent of transactions within Protocols for each transaction type by business process by month as required by the rule. Protocol times for all TDU transactions were calculated using the hours set forth and agreed by the Texas Data Transport Working Group.

#### Processing Issue

ERCOT experienced a retail transaction processing issues on January 24, 2020; 03:38 – 10:45. ERCOT received unexpected volumes from a market participant which resulted in slow and/or sporadic processing of retail transactions. Processing was performing as expected with the exception of a slowdown in the processing of 814\_20s. ERCOT continued analysis and reached out directly to those trading partners who did not receive the expected responses to submissions during this period.



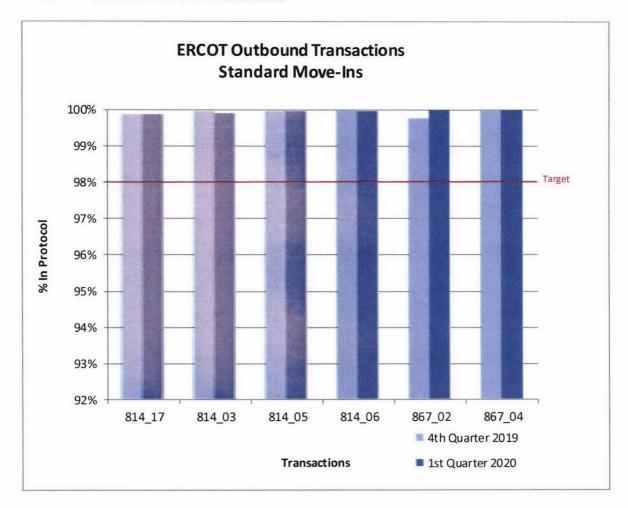
#### 1. Switch Transactions



• There were 242,009 814\_01 (Switch) transactions in the first quarter of 2020, 263 more than in the fourth quarter of 2019.



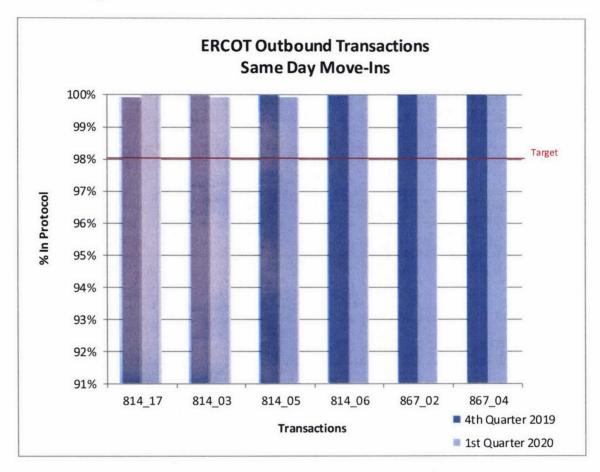
#### 2. Standard Move-In Transactions



• There were 316,327 Standard 814\_16 (Move-In) transactions in the first quarter of 2020, 2,687 more than in the fourth quarter of 2019.



#### 3. Same Day Move In Transactions



• There were 343,083 Same Day 814\_16 (Move-In) transactions in the first quarter of 2020, 24,832 less than in the fourth quarter of 2019.



#### Measure B-2: Meter Read Transaction Success Rate

This measure examines the Move Out, ESI ID Create, ESI ID Maintain, Historical usage, monthly usage, and initial meter read transaction flow within ERCOT Protocols. The *Total Market Protocol Report*, included as Attachment A4, contains ERCOT totals.

The following files contain individual market participant performance measure reports and are proprietary and confidential:

CR Summary Files – (45 days after the quarter the individual files are posted to the Market Information System (MIS) in each MP's folder called Performance Measures.

TDU Summary Files - Attachment A8

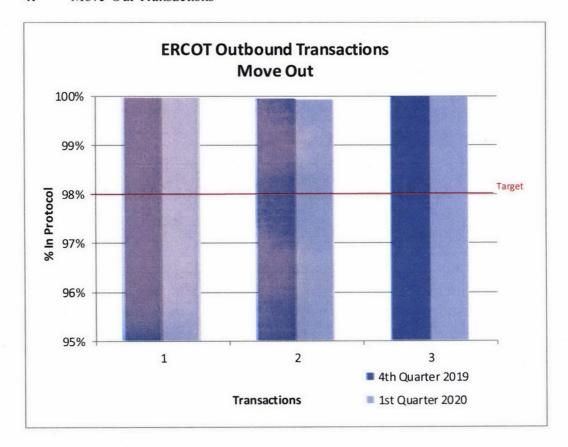
#### Monthly Meter Readings – 867\_03 Transactions

For this portion of the analysis, Monthly Meter Reading data is reported from ERCOT's DataTrak system for the first quarter of 2020. The information provided in these reports is proprietary and confidential in the CR Summary files. This report contains aggregated data for monthly meter readings and no distinction may be made between monthly meter readings, final meter readings and/or cancellations.

The Monthly Meter Readings (867\_03) were forwarded by ERCOT 99.96% within Protocols in the first quarter of 2020. This compares to 100% reported in the fourth quarter of 2019.



#### 4. Move Out Transactions

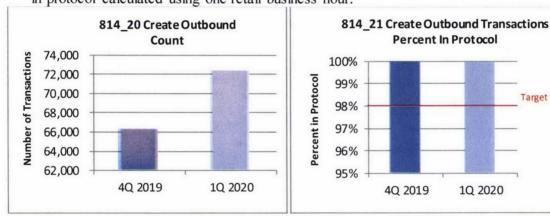


• There were 313,834 814\_24 (Move-Out) transactions in the first quarter of 2020, 9,343 less than in the fourth quarter of 2019.



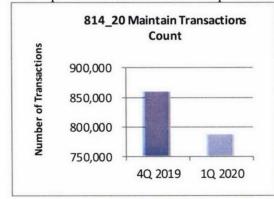
#### 5. ESI ID Create

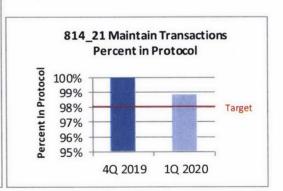
- There were 72,413 814 20 (ESI ID Create) transactions in the first quarter of 2020.
- 814 21 Create ESI ID transactions were processed 99.99% within Protocols in the first quarter of 2020. This compares to 100% reported for the fourth quarter of 2019. Percent in protocol calculated using one retail business hour.



#### 6. ESI ID Maintain

- There were 786,935 814 20 (ESI ID Maintain) transactions in the first quarter of 2020.
  - 814 21 Maintain ESI ID transactions were processed 98.84% within Protocols in the first quarter of 2020. This compares to 99.99% reported in the fourth quarter.

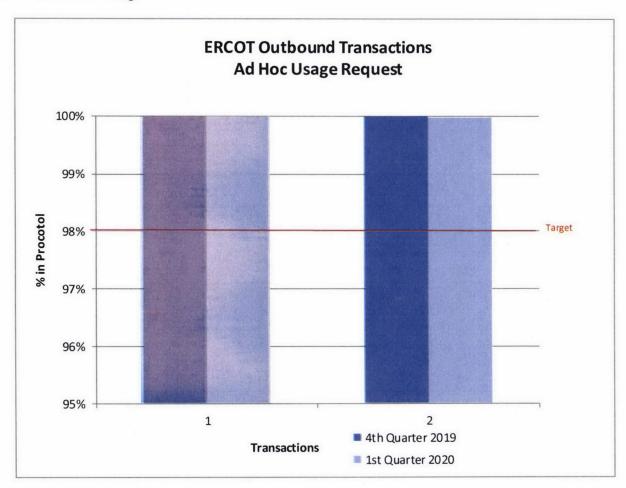




Target



#### 7. Historical Usage



- 814\_26 Ad Hoc Usage Requests were forwarded 100% within Protocols in the first quarter of 2020 compared to 100% in the fourth quarter of 2019.
- 867\_02 Historical Usage sent to the CR were forwarded 99.97% within Protocols in the first quarter of 2020 compared to 100% in the fourth quarter of 2019.



#### Measure B-3: Service Reliability

Service reliability related to ERCOT systems is presented in Attachment A6 - System Availability 1Q 2020.

During the 65 business days of the first quarter of 2020, ERCOT Retail Market IT Services had 1 unplanned outage or service degradation which affected 1 day.

- 1 incident affecting Retail Processing
- 0 incidents affecting MarkeTrak GUI over 0 days (0 total outage minutes)
- 0 incidents affecting MarkeTrak API over 0 days (0 total outage minutes)
- 0 incidents affecting the intervals of 0 MIS reports over 0 days (0 total outage minutes)



#### Measure B-4: Unauthorized Changes

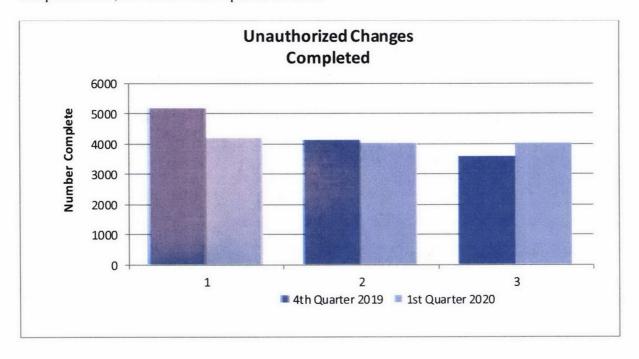
This measure tracks the number of unauthorized change (inadvertent gain) issues completed by REP by month for the reporting quarter. The data presented is: (a) count of unauthorized change issues completed, (b) number of switches completed and (c) percentage of completed unauthorized changes to the number of switches. This data is presented on the Gaining Rep tab of the workbook.

In addition, this measure tracks a count of ESI IDs that each REP lost in the month the unauthorized change issue was completed. This provided in the Losing Rep tab of the workbook.

The third tab in the workbook presents the net gain or loss of ESI IDs because of inadvertent gain/loss issues. A net difference for each REP is calculated.

See Unauthorized Changes 1Q 2020.xlsx, Attachment A7. This data is filed confidentially.

There were a total of 12,297 unauthorized changes completed in the first quarter of 2020 compared to 12,908 in the fourth quarter of 2019.



First Quarter 2020

12

April 6, 2020



#### Supplemental Information - Observable Selection of Electric Provider

See Observed Selection of Electric Providers 1Q 2020.ppt, Attachment A9.

This percentage of ESI IDs represented in blue with an "Observed Selection" includes:

- ESI IDs created after the start of full Retail Competition in 2002
- ESI IDs that have had at least one change to the initially established Rep of Record relationship since the start of Retail Competition in 2002

This percentage of ESI IDs represented in red without an "Observed Selection" includes:

• ESI IDs that have never had a change to the initially established Rep of Record relationship since the start of Retail Competition in 2002

These statistics are based on the data available in ERCOT's retail registration system.

17

## PUCT Project No. 36141 Performance Measures 1st Quarter 2020

|           | Cross<br>Reference |                                 | Tran   |              |   | Reporting |          |         | Reporting | 1 Month | 1 Month %<br>Within | 2 Month | 2 Month %<br>Within | 3 Month | 3 Month %<br>Within | Total   | Total ?<br>Withir |
|-----------|--------------------|---------------------------------|--------|--------------|---|-----------|----------|---------|-----------|---------|---------------------|---------|---------------------|---------|---------------------|---------|-------------------|
| MP DUNS   | Number             | Process                         | Type   | Direction    | Tran Type Description   | Party     | per Rule | Measure | Quarter   | Volume  | Protocol            | Volume  | Protocol            | Volume  | Protocol            | Volume  | Protoc            |
| 183529049 | 1C                 | Switch                          | 814_01 | Received     | Switch Request Received by ERCOT<br>from new CR   | ERCOT     | Required | B-1a)   | 1Q 2020   | 78,755  | not applicable      | 74,379  | not applicable      | 88,875  | not applicable      | 242,009 | not applic        |
| 183529049 | 2C                 | Switch                          | 814_02 | Sent         | Switch Request Reject Sent from<br>ERCOT to new CR  | ERCOT     | Required | B-1a)   | 1Q 2020   | 3,525   | 100%                | 2,795   | 100%                | 3,040   | 100%                | 9,360   | 1                 |
| 183529049 | 1T                 | Switch                          | 814 03 | Sent         | Switch Request Notification Sent from<br>ERCOT to TDSP                                      | ERCOT     | Required | B-1a)   | 1Q 2020   | 75,227  | 100%                | 71,584  | 100%                | 85,835  | 100%                | 232,646 | 1                 |
| 183529049 | 2Т                 | Switch                          | 814 04 | Received     | Switch Notification Response Received<br>by ERCOT from TDSP                                 | ERCOT     | Required | B-1a)   | 1Q 2020   | 75,170  | 100%                | 71,537  | 100%                | 85,810  | 100%                | 232,517 | 1                 |
| 183529049 | 3C                 | Switch                          | 814 05 | Sent         | Scheduled Switch Notification Sent from<br>ERCOT to new CR                                  |           | Required | B-1a)   | 1Q 2020   | 75,083  | 100%                | 71,635  | 100%                | 85,709  | 100%                | 232,427 |                   |
|           | 1000               |                                 |        |              | Scheduled Switch Notification Sent from   |           |          |         |           |         |                     |         |                     |         |                     |         |                   |
| 183529049 | 5C                 | Switch                          | 814_06 | Sent         | ERCOT to current CR Scheduled Switch Notification Sent                                      | ERCOT     | Required | B-1a)   | 1Q 2020   | 59,272  | 100%                | 52,677  | 100%                | 53,104  | 100%                | 165,053 | 1                 |
| 183529049 | 5C                 | Switch                          | 814_06 | Sent Pending | Pending from ERCOT to current CR  | ERCOT     | Required | B-1a)   | 1Q 2020   | 19,470  | 100%                | 13,730  | 100%                | 23,307  | 100%                | 56,507  | 1                 |
| 183529049 | 6C                 | Switch                          | 814 07 | Received     | Scheduled Switch Notification Response<br>Received by ERCOT from current CR                 | ERCOT     | Required | B-1a)   | 1Q 2020   | 0       | not applicable      | 0       | not applicable      | 0       | not applicable      | 0       | not applic        |
| 183529049 | 4T                 | Switch                          |        | Received     | Historical Usage Request Received by ERCOT from TDSP  | ERCOT     | Required | B-2     | 1Q 2020   | 66,953  | 100%                | 65,951  | 100%                | 79,661  | 100%                | 212,565 | 1                 |
|           | 7C                 |                                 |        |              | Historical Usage Request Sent from  | ERCOT     |          |         |           | 66.943  |                     |         | 100%                | 79,562  |                     |         |                   |
| 183529049 | /C                 | Switch                          | 867_02 | Sent         | ERCOT to CR Initial Meter Read Request Received by  | ERCOI     | Required | B-2     | 1Q 2020   | 00,943  | 100%                | 66,192  | 100%                | 79,562  | 100%                | 212,697 | 1                 |
| 183529049 | 8T                 | Switch                          | 867_04 | Received     | ERCOT from TDSP Initial Meter Read Request Sent from  | ERCOT     | Required | B-2     | 1Q 2020   | 79,119  | not applicable      | 66,170  | not applicable      | 74,793  | not applicable      | 220,082 | not applic        |
| 183529049 | 9C                 | Switch                          | 867_04 | Sent         | ERCOT to CR   | ERCOT     | Required | B-2     | 1Q 2020   | 79,119  | 100%                | 66,170  | 100%                | 74,793  | 100%                | 220,082 | 1                 |
| 183529049 | 11C                | Standard<br>Move-In             | 814_16 | Received     | Move-In Request Received by ERCOT from new CR   | ERCOT     | Required | B-1b)   | 1Q 2020   | 106,949 | not applicable      | 103,279 | not applicable      | 106,099 | not applicable      | 316,327 | not appli         |
| 183529049 | 12C                | Standard<br>Move-In             | 814 17 | Sent         | Move-In Request Reject Sent from<br>ERCOT to new CR   | ERCOT     | Required | B-1b)   | 1Q 2020   | 1,031   | 100%                | 917     | 100%                | 1,062   | 100%                | 3,010   | 1                 |
| 183529049 | 7T                 | Standard<br>Move-In             | 814 03 | Cont         | Move-In Request Notification Sent from<br>ERCOT to TDSP                                     | ERCOT     | Required | B-1b)   | 1Q 2020   | 105,917 | 100%                | 102,361 | 100%                | 105,029 | 100%                | 313.307 | 1                 |
| 183529049 | 8T                 | Standard<br>Move-In             | 814 04 | Received     | Move-In Notification Response Received<br>by ERCOT from TDSP with no Permit<br>Requirement  |           | Required | B-1b)   | 1Q 2020   | 98.652  | 100%                | 94.918  | 100%                | 97.980  | 100%                | 291,550 |                   |
| 183529049 | 8T                 | Standard<br>Move-In             | 814 04 |              | Move-In Notification Response Received<br>by ERCOT from TDSP with Permit<br>Requirement(PT) |           | Required | B-1b)   | 1Q 2020   | 5,369   |                     | 4,757   |                     |         | not applicable      |         | not appli         |
|           | 14C                | Standard<br>Move-In             | 814 05 |              | Scheduled Move-In Notification Sent from ERCOT to new CR                                    | ERCOT     | Required | B-1b)   | 1Q 2020   | 103,980 | 100%                | 99,256  | 100%                | 103.096 | 100%                | 306,332 | 1                 |
| 183529049 | 140                | Standard                        | 814_05 | Sent         | Scheduled Move-In Notification Sent   | ERCOI     | Required | B-10)   | TQ 2020   | 103,960 | 100%                | 99,230  | 100%                | 103,096 | 100%                | 300,332 | -                 |
| 183529049 | 15C                | Move-In                         | 814_06 | Sent         | from ERCOT to current CR Scheduled Move-In Notification Sent                                | ERCOT     | Required | B-1b)   | 1Q 2020   | 46,465  | 100%                | 43,194  | 100%                | 44,927  | 100%                | 134,586 | 1                 |
| 183529049 | 15C                | Standard<br>Move-In             | 814_06 | Sent Pending |   | ERCOT     | Required | B-1b)   | 1Q 2020   | 25,949  | 100%                | 27,462  | 100%                | 28,442  | 100%                | 81,853  | 1                 |
| 183529049 | 16C                | Standard<br>Move-In<br>Standard | 814_07 | Received     | Response Received by ERCOT from current CR  | ERCOT     | Required | B-1b)   | 1Q 2020   | 0       | not applicable      | 0       | not applicable      | 0       | not applicable      | 0       | not applic        |
| 183529049 | 9T                 | Move-In                         | 814_28 | Received     | Permit Pending  | ERCOT     | Required | B-1b)   | 1Q 2020   | 7,189   | 100%                | 7,378   | 100%                | 6,872   | 100%                | 21,439  | 1                 |
| 183529049 | 10T                | Standard<br>Move-In             | 814_28 | Received     | Completed Unexecutable  | ERCOT     | Required | B-1b)   | 1Q 2020   | 3,030   | not applicable      | 2,691   | not applicable      | 2,776   | not applicable      | 8,497   | not appli         |
| 183529049 | 17C                | Standard<br>Move-In             | 814_28 | Sent         | Permit Pending  | ERCOT     | Required | B-1b)   | 1Q 2020   | 7,180   | 100%                | 7,379   | 100%                | 6,857   | 100%                | 21,416  | 1                 |
| 183529049 | 18C                | Standard<br>Move-In             | 814_28 | Sent         | Completed Unexecutable  | ERCOT     | Required | B-1b)   | 1Q 2020   | 3,258   | 100%                | 2,872   | 100%                | 2,995   | 100%                | 9,125   | 1                 |
| 183529049 | N/A                | Standard<br>Move-In             | 814 29 | Received     | Response - Permit Pending / Completed<br>Unexecutable                                       | ERCOT     | Required | B-1b)   | 1Q 2020   | 0       | not applicable      | 0       | not applicable      | 0       | not applicable      | 0       | not appli         |
| 183529049 | 44E                | Standard<br>Move-In             | 814 29 |              | Response - Permit Pending / Completed<br>Unexecutable                                       |           | Required | B-1b)   | 1Q 2020   | 31      | 100%                | 26      | 100%                | 384     | 100%                | 441     | 1                 |
|           | 11T                | Standard                        |        |              | Historical Usage Request Received by<br>ERCOT from TDSP                                     | ERCOT     | Required | B-10)   | 1Q 2020   | 73,477  | 100%                | 71,056  | 100%                | 72,973  | 100%                | 217,506 | 1                 |
| 183529049 |                    | Move-In<br>Standard             |        | Received     | Historical Usage Request Sent from  |           |          |         |           |         |                     |         |                     |         |                     |         |                   |
| 183529049 | 20C                | Move-In<br>Standard             | 867_02 | Sent         | ERCOT to CR<br>Initial Meter Read Request Received by                                       | ERCOT     | Required | B-2     | 1Q 2020   | 73,229  | 100%                | 71,383  | 100%                | 73,000  | 100%                | 217,612 | 1                 |
| 183529049 | 14T                | Move-In<br>Standard             | 867_04 | Received     | ERCOT from TDSP Initial Meter Read Request Sent from  | ERCOT     | Required | B-2     | 1Q 2020   | 95,534  | not applicable      | 92,902  | not applicable      | 95,064  | not applicable      | 283,500 | not applic        |
| 183529049 | 22C                | Move-In                         | 867_04 | Sent         | ERCOT to CR   | ERCOT     | Required | B-2     | 1Q 2020   | 95,535  | 100%                | 92,906  | 100%                | 95,066  | 100%                | 283,507 | 1                 |

## PUCT Project No. 36141 Performance Measures 1st Quarter 2020

| Tetal Market | Cross     |                                |        |              | CONTRACTOR OF THE STATE OF THE |           | Optional |         |                    | NAME OF TAXABLE PARTY. | 1 Month %      | SEC.    | 2 Month %      |         | 3 Month %      |         | Total %      |
|--------------|-----------|--------------------------------|--------|--------------|---|-----------|----------|---------|--------------------|------------------------|----------------|---------|----------------|---------|----------------|---------|--------------|
|              | Reference | Business                       | Tran   |              |   | Reporting |          |         | Reporting          | 1 Month                | Within         | 2 Month | Within         | 3 Month | Within         | Total   | Within       |
| W MP DUNS    | Number    | Process                        | Type   | Direction    | Tran Type Description   | Party     | per Rule | Measure | Guarter            | Volume                 | Protocol       | Volume  | Protocol       | Volume  | Protocol       | Volume  | Protoce      |
|              |           | Priority                       |        |              | Move-In Request Received by ERCOT   |           |          |         | 10.0000            | 100 711                |                | 110 710 |                | 444.007 |                | 040.000 |              |
| 3E 183529049 | 23C       | Move-In<br>Priority            | 814_16 | Received     | from new CR Move-In Request Reject Sent from  | ERCOT     | Required | B-1c)   | 1Q 2020            | 120,744                | not applicable | 110,712 | not applicable | 111,627 | not applicable | 343,083 | not applicat |
| 5E 183529049 | 24C       | Move-In                        | 814_17 | Sent         | ERCOT to new CR  Move-In Request Notification Sent from   | ERCOT     | Required | B-1c)   | 1Q 2020            | 1,320                  | 100%           | 1,300   | 100%           | 1,523   | 100%           | 4,143   | 100          |
| E 183529049  | 15T       | Priority<br>Move-In            | 814_03 | Sent         | ERCOT to TDSP  Move-In Notification Response Received   | ERCOT     | Required | B-1c)   | 1Q 2020            | 119,420                | 100%           | 109,413 | 100%           | 110,103 | 100%           | 338,936 | 100          |
| E 183529049  | 16T       | Priority<br>Move-In            | 814 04 | Received     | by ERCOT from TDSP with no Permit Requirement   | ERCOT     | Required | B-1c)   | 1Q 2020            | 113,875                | 100%           | 104,381 | 100%           | 104,453 | 100%           | 322,709 | 100          |
| 100020040    |           | Priority                       | 011_01 | 110001100    | Move-In Notification Response Received<br>by ERCOT from TDSP with Permit  |           |          |         |                    |                        |                |         |                |         | 11111          |         |              |
| E 183529049  | 16T       | Move-In<br>Priority            | 814_04 | Received     | Requirement(PT) Scheduled Move-In Notification Sent   | ERCOT     | Required | B-1c)   | 1Q 2020            | 3,849                  | not applicable | 3,653   | not applicable | 3,424   | not applicable | 10,926  | not applicat |
| E 183529049  | 26C       | Move-In<br>Priority            | 814_05 | Sent         | from ERCOT to new CR Scheduled Move-In Notification Sent  | ERCOT     | Required | B-1c)   | 1Q 2020            | 117,959                | 100%           | 108,064 | 100%           | 108,622 | 100%           | 334,645 | 100          |
| 183529049    | 27C       | Move-In<br>Priority            | 814_06 | Sent         | from ERCOT to current CR Scheduled Move-In Notification Sent  | ERCOT     | Required | B-1c)   | 1Q 2020            | 78,734                 | 100%           | 71,897  | 100%           | 70,086  | 100%           | 220,717 | 100          |
| E 183529049  | 27C       | Move-In                        | 814_06 | Sent Pending | Pending from ERCOT to current CR Scheduled Move-In Notification   | ERCOT     | Required | B-1c)   | 1Q 2020            | 46                     | 100%           | 50      | 100%           | 38      | 100%           | 134     | 100          |
| E 183529049  | 28C       | Priority<br>Move-In            | 814 07 | Received     | Response Received by ERCOT from current CR  | ERCOT     | Required | B-1c)   | 1Q 2020            | 0                      | not applicable | 0       | not applicable | 0       | not applicable | 0       | not applicab |
| E 183529049  | 18T       | Priority<br>Move-In            | 814 28 |              | Permit Pending  | ERCOT     | Required | B-1c)   | 1Q 2020            | 5,506                  | 100%           | 5,009   | 100%           | 5.602   | 99%            | 16,117  |              |
|              | 19T       | Priority<br>Move-In            | 814 28 |              | Completed Unexecutable  | ERCOT     | Required | B-1c)   | 1Q 2020            | 1,904                  | not applicable | 1,641   | not applicable | 1.790   |                | 5.335   |              |
| 10002011     | 29C       | Priority                       |        |              | Permit Pending  | ERCOT     | Required | B-1c)   | 1Q 2020            | 5,506                  | 100%           | 5,011   | 100%           | 5,607   | 100%           | 16,124  |              |
| E 183529049  | 30C       | Move-In<br>Priority<br>Move-In | 814_28 |              | Completed Unexecutable  | ERCOT     | Required | B-1c)   | 1Q 2020            | 2.038                  | 100%           | 1,714   | 100%           | 1.818   | 100%           | 5.570   |              |
| 1000200      | N/A       | Priority                       |        |              | Response - Permit Pending / Completed<br>Unexecutable   | ERCOT     | Required | B-1c)   | 1Q 2020            |                        | not applicable | 1,714   | not applicable | 1,010   |                |         | not applicab |
| E 183529049  | 75E       | Move-In<br>Priority            | 814_29 |              | Response - Permit Pending / Completed<br>Unexecutable   | ERCOT     | Required | B-1c)   | 1Q 2020            | 89                     | 100%           | 71      | 100%           | 246     | 100%           | 406     |              |
| E 183529049  |           | Move-In<br>Priority            | 814_29 |              | Historical Usage Request Received by<br>ERCOT from TDSP   | ERCOT     |          | B-1c)   | 1Q 2020            | 91,932                 | 100%           | 85,648  | 100%           | 85,178  | 100%           | 262,758 |              |
| E 183529049  | 21T       | Move-In<br>Priority            |        | Received     | Historical Usage Request Sent from  |           | Required |         |                    |                        |                |         |                |         |                |         |              |
| E 183529049  | 31C       | Move-In<br>Priority            | 867_02 |              | ERCOT to CR Initial Meter Read Request Received by  | ERCOT     | Required | B-1c)   | 1Q 2020            | 91,730                 | 100%           | 85,918  | 100%           | 85,290  | 100%           | 262,938 |              |
| E 183529049  | 26T       | Move-In<br>Priority            | 867_04 |              | ERCOT from TDSP Initial Meter Read Request Sent from  | ERCOT     | Required | B-2     | 1Q 2020<br>1Q 2020 | 113,398                | not applicable | 105,250 | not applicable | 104,468 | not applicable | 323,116 | not applicab |
| E 183529049  | 34C       | Move-In                        | 867_04 |              | ERCOT to CR Move-Out Request Received by ERCOT  | ERCOT     | Required | B-2     |                    |                        |                |         |                |         |                | 323,111 |              |
| 183529049    | 35C       | Move-Out                       | 814_24 |              | from current CR Move-Out Request Sent from ERCOT to   |           | Required | B-1d)   | 1Q 2020            | 106,727                | not applicable | 98,951  | not applicable | 108,156 |                | 313,834 |              |
| E 183529049  | 27T       | Move-Out                       | 814_24 |              | TDSP Move-Out Response Received by  | ERCOT     | Required | B-1d)   | 1Q 2020            | 63,685                 | 100%           | 58,722  | 100%           | 64,148  | 100%           | 186,555 |              |
| E 183529049  | 28T       | Move-Out                       | 814_25 |              | ERCOT from TDSP  Move-Out Response Sent by ERCOT to   | ERCOT     | Required | B-1d)   | 1Q 2020            | 63,626                 | 100%           | 58,677  | 100%           | 63,969  | 100%           | 186,272 |              |
| E 183529049  | 36C       | Move-Out                       | 814_25 |              | CR<br>Final Meter Read Received by ERCOT  | ERCOT     | Required | B-1d)   | 1Q 2020            | 106,463                | 100%           | 98,961  | 100%           | 107,813 | 100%           | 313,237 | 100          |
| E 183529049  | 29T       | Move-Out                       | 867_03 |              | from TDSP Final Meter Read Sent from ERCOT to   | ERCOT     | Required | B-2b)   | 1Q 2020            | 87,413                 | not applicable | 81,870  | not applicable | 92,726  |                | 262,009 |              |
| 183529049    | 37C       | Move-Out<br>Historical         | 867_03 | Sent         | CR  | ERCOT     | Required | B-2b)   | 1Q 2020            | 87,407                 | 100%           | 81,870  | 100%           | 92,724  | 100%           | 262,001 | 100          |
| E 183529049  | 38C       | Usage<br>Request               | 814_26 | Received     | Ad-hoc Historical Usage Request<br>Received by ERCOT from CR  | ERCOT     | Required | B-2a)   | 1Q 2020            | 42,296                 | not applicable | 23,741  | not applicable | 25,980  | not applicable | 92,017  | not applicab |
| E 183529049  | 30T       | Historical<br>Usage<br>Request | 814 26 | Sent         | Ad-hoc Historical Usage Request Sent from ERCOT to TDSP   | ERCOT     | Required | B-2a)   | 1Q 2020            | 42.197                 | 100%           | 23.482  | 100%           | 25.886  | 100%           | 91,565  | 100          |
| 100020043    | 307       | Historical<br>Usage            | 314_20 | - Corn       | Ad-hoc Historical Usage Response  | 2,1001    | Loquiou  | 2 20/   | . 3 2020           | 72,101                 | 100/6          | 20,102  | 10076          | 20,000  | 100/6          | 01,000  | ,00          |
| E 183529049  | 31T       | Request<br>Historical          | 814_27 | Received     | Received by ERCOT from TDSP   | ERCOT     | Required | B-2a)   | 1Q 2020            | 42,195                 | 100%           | 23,482  | 100%           | 25,771  | 100%           | 91,448  | 100          |
| E 183529049  | 39C       | Usage                          | 814 27 | Sent         | Ad-hoc Historical Usage Response Sent from ERCOT to CR  | ERCOT     | Required | B-2a)   | 1Q 2020            | 42.254                 | 100%           | 23.854  | 100%           | 25.898  | 100%           | 92,006  | 100          |

#### PUCT Project No. 36141

#### **Performance Measures**

1st Quarter 2020

|      | Tetal Market | Cross<br>Reference | Business                       | Tran   |           |  | Reporting | Optional /<br>Required | 70000   | Reporting | 1 Month   | 1 Manth %<br>Within | 2 Month   | 2 Month %<br>Within | 3 Month   | 3 Month %<br>Within | Total      | Total %<br>Within |
|------|--------------|--------------------|--------------------------------|--------|-----------|--|-----------|------------------------|---------|-----------|-----------|---------------------|-----------|---------------------|-----------|---------------------|------------|-------------------|
| ttow | MP DUNS      | Number             | Process                        | Type   | Direction | Tran Type Description                                      | Party     | per Rule               | Measure | Quarter   | Volume    | Protocol            | Volume    | Protocol            | Volume    | Protocol            | Volume     | Protocol          |
| 99E  | 183529049    | 33T                | Historical<br>Usage<br>Request | 867_02 | Received  | Historical Usage Request Received by<br>ERCOT from TDSP    | ERCOT     | Required               | B-2a)   | 1Q 2020   | 31,236    | 100%                | 12,753    | 100%                | 15,911    | 100%                | 59,900     | 1009              |
| 100E | 183529049    | 41C                | Historical<br>Usage<br>Request | 867_02 | Sent      | Historical Usage Request Sent from ERCOT to CR             | ERCOT     | Required               | B-2a)   | 1Q 2020   | 31,716    | 100%                | 13,178    | 100%                | 16,352    | 100%                | 61,246     | 100%              |
| 102E | 183529049    | 43T                | ESI ID<br>Create               | 814_20 | Received  | Create ESI ld request received by<br>ERCOT from the TDSP   | ERCOT     | Required               | B-2c)   | 1Q 2020   | 24,223    | not applicable      | 26,079    | not applicable      | 22,111    | not applicable      | 72,413     | not applicable    |
| 103E | 183529049    | 44T                | ESI ID<br>Create               | 814_21 | Sent      | Create ESI Id request sent by ERCOT to<br>the TDSP         | ERCOT     | Required               | B-2c)   | 1Q 2020   | 24,221    | 100%                | 26,060    | 100%                | 22,104    | 100%                | 72,385     | 100%              |
| 105E | 183529049    | 45T                | ESI ID<br>Maintain             | 814 20 | Received  | Maintain ESI Id request received by<br>ERCOT from the TDSP | ERCOT     | Required               | B-2d)   | 1Q 2020   | 270,357   | not applicable      | 242,033   | not applicable      | 274,545   | not applicable      | 786,935    | not applicable    |
| 106E | 183529049    | 46T                | ESI ID<br>Maintain             | 814 21 | Sent      | Maintain ESI Id request sent by ERCOT to the TDSP          | ERCOT     | Required               | B-2d)   | 1Q 2020   | 267,350   | 97%                 | 229,766   | 100%                | 142,351   | 100%                | 639,467    | 99%               |
| 107E | 183529049    | 39T                | Meter<br>Reading               | 867 03 | Received  | Monthly meter Reading received from TDSP                   | ERCOT     | Required               | B-2b)   | 1Q 2020   | 8,514,531 | not applicable      | 7,847,135 | not applicable      | 8,172,591 | not applicable      | 24,534,257 | not applicable    |
| 109E | 183529049    | 47C                | Meter<br>Reading               | 867_03 | Sent      | Monthly meter Reading sent by ERCOT to CR                  | ERCOT     | Required               | B-2b)   | 1Q 2020   | 8,514,631 | 100%                | 7,845,887 | 100%                | 8,171,706 | 100%                | 24,532,224 | 100%              |

| E | ERCOT |
|---|-------|
| С | CR    |
| T | TDSP  |



# Information Technology Report

Dave Pagliai
Manager, IT Support Services

**ERCOT Public** February 2020

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#### Service Availability – January 2020

- √ Retail Market IT systems met all SLA targets
- √ Market Data Transparency IT systems met all SLA targets

#### Retail Incidents & Maintenance – January 2020

- 01/19/20 Planned Maintenance (Site Failover Retail Processing, MarkeTrak, FindESIID, FindTransaction)
- 01/24/20 3:38 AM 10:45 AM ERCOT received unexpected volumes from a market participant, which resulted in slow and/or sporadic processing of retail transactions
  - During this time period the expected responses to retail submissions were delayed

#### Non-Retail Incidents & Maintenance – January 2020

- 1/17/20 10:45 AM 12:00 PM Access to the MIS UI may have been intermittent.
   The MIS API was not impacted.
- 01/17/20 Planned Maintenance (Site Failover External Web Services)
- 01/17/20 Planned Maintenance (Site Failover MIS)
- 01/18/20 Planned Maintenance (Site Failover MPIM, Retail API)



# MarkeTrak Performance

|                 | Marke Trak       |                 |                  |               |  |  |  |  |  |  |  |  |  |
|-----------------|------------------|-----------------|------------------|---------------|--|--|--|--|--|--|--|--|--|
| Jan-20          | Availability (%) | Response T      | ime (seconds)    | SLO (seconds) |  |  |  |  |  |  |  |  |  |
|                 |                  | Monthly Average | 12 Month Average |               |  |  |  |  |  |  |  |  |  |
| API QueryDetail | 100.000          | 1.43            | 1.73             | 2             |  |  |  |  |  |  |  |  |  |
| API QueryList   | 100.000          | 5.24            | 8.00             | 10            |  |  |  |  |  |  |  |  |  |
| API Update      | 100.000          | 1.32            | 1.56             | 10            |  |  |  |  |  |  |  |  |  |
| GUI             | 99.990           | 4.328           | 5.48             | 10            |  |  |  |  |  |  |  |  |  |
| Average         | 99.998           |                 |                  |               |  |  |  |  |  |  |  |  |  |





# Information Technology Report

Dave Pagliai
Manager, IT Support Services

ERCOT Public March 2020

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#### Service Availability - February 2020

- ✓ Retail Market IT systems met all SLA targets
- √ Market Data Transparency IT systems met all SLA targets

#### Retail Incidents & Maintenance – February 2020

None to report

#### Non-Retail Incidents & Maintenance – February 2020

- 02/04/20 02/06/20 R1 Release
  - 02/18/20 12:25 PM 3:03 PM Users of the Market Participant Identity Management (MPIM) application were unable to issue, renew, or revoke client digital certificates



# MarkeTrak Performance

|                 | MarkeTrak        |                 |                  |               |  |  |  |  |  |  |  |  |  |
|-----------------|------------------|-----------------|------------------|---------------|--|--|--|--|--|--|--|--|--|
| Feb-20          | Availability (%) | Response T      | ime (seconds)    | SLO (seconds) |  |  |  |  |  |  |  |  |  |
|                 |                  | Monthly Average | 12 Month Average |               |  |  |  |  |  |  |  |  |  |
| API QueryDetail | 100.000          | 1.03            | 1.64             | 2             |  |  |  |  |  |  |  |  |  |
| API QueryList   | 100.000          | 5.46            | 7.41             | 10            |  |  |  |  |  |  |  |  |  |
| API Update      | 100.000          | 1.18            | 1.18             | 10            |  |  |  |  |  |  |  |  |  |
| GUI             | 99.921           | 4.168           | 4.99             | 10            |  |  |  |  |  |  |  |  |  |
| Average         | 99.980           |                 |                  |               |  |  |  |  |  |  |  |  |  |



PUBLIC



# Information Technology Report

Dave Pagliai
Manager, IT Support Services

**ERCOT Public April 2020** 

# 

#### **Service Availability – March 2020**

- ✓ Retail Market IT systems met all SLA targets
- √ Market Data Transparency IT systems met all SLA targets

#### Retail Incidents & Maintenance – March 2020

 03/15/20 – Planned Maintenance (Site Failover – Retail Processing, MarkeTrak, FindESIID, FindTransaction)

#### Non-Retail Incidents & Maintenance − March 2020

- 03/16/20 Planned Maintenance (Site Failover External Web Services)
- 03/18/20 Planned Maintenance (Site Failover MIS)
- 03/19/20 Planned Maintenance (Site Failover MPIM, Retail API)
- 03/18/20 9:51 AM 10:06 AM Access to the MIS UI may have been intermittent.
   The MIS API was not impacted.



# MarkeTrak Performance

| Marke Trak      |                  |  |                  |    |  |  |  |  |  |  |  |  |
|-----------------|------------------|--|------------------|----|--|--|--|--|--|--|--|--|
| Mar-20          | Availability (%) | Availability (%) Response Time (seconds) |                  |    |  |  |  |  |  |  |  |  |
|                 |                  | Monthly Average                          | 12 Month Average |    |  |  |  |  |  |  |  |  |
| API QueryDetail | 100.000          | 1.34                                     | 1.58             | 2  |  |  |  |  |  |  |  |  |
| API QueryList   | 100.000          | 10.67                                    | 7.19             | 10 |  |  |  |  |  |  |  |  |
| API Update      | 100.000          | 1.08                                     | 1.45             | 10 |  |  |  |  |  |  |  |  |
| GUI             | 99.984           | 4.810                                    | 4.73             | 10 |  |  |  |  |  |  |  |  |
| Average         | 99.996           |  |                  |    |  |  |  |  |  |  |  |  |



#### ERCOT IT Incident Market Notice Summary - 2020

| nuary                | 1, 2020 -  |         | 31, 2020 Incid                               | dents                  |               | thurston         |   | Application  |   |   |                      |  | identification                     | -                                    |  |   | trate (to be) | -                                      |                      |
|----------------------|--|---------|--|------------------------|---------------|------------------|---|--|---|---|----------------------|--|------------------------------------|--------------------------------------|--|---|---------------|--|----------------------|
| Month                | Date   | Date    | Notification ID                              | Start Time             | End Time      | (mins)           | SLA impacted  | impacted   | Issue Description   | Root Cause                              | Service impact       | Service Impact Detail                                  | Method                             | Market Impact                        | Root Gause Details   | Resolution                                    | Implemented   | Notes                                  | Gurrent Status       |
| January              | 1/19/20  | 1/16/20 | M-C011620-02<br>M-C011620-01                 | 8:00 AM                | 10:17 AM      | 137              | Retail Market   | Retail Processing,<br>MarkeTrak,<br>FindESIID,<br>FindTransaction  | Planned Maintenance Outage  | Site Fallover                           | N/A                  | Planned Outage   | Planned<br>Maintenance             | None                                 | N/A  | N/A   | N/A           | Commercial<br>Systems Site<br>Failover | Complete             |
| January              | 1/24/20  | 1/24/20 | R-A012420-02<br>R-A012420-01                 | 3:38 AM                | 10:45 AM      | 427              | Retail Market   | Retail Processing  | <ul> <li>During this time period the expected<br/>responses to retail submissions were delayed</li> </ul> | Unexpected volumes of transactions from | Timeliness           | Slow and/or sporadic processing of retail transactions | ERCOT monitoring                   |                                      | Unexpected volumes of transactions from one Market Participant | Eventual processing of the large volumes      | N/A           |  | Complete             |
| ebruary              |  |         |  |                        |               |                  |   |  |   |   |                      |  |                                    |                                      |  |   |               |  |                      |
| March                | 3/15/20  | 3/10/20 | M-B031020-03<br>M-B031020-02<br>M-B031020-01 | 8:00 AM                | 10:35 AM      | 155              | Retail Market   | Retail Processing,<br>MarkeTrak,<br>FindESIID,<br>FindTransaction  | Planned Maintenance Outage  | Site Fallover                           | N/A                  | Planned Outage   | Planned<br>Maintenance             | None                                 | N/A  | N/A   | N/A           | Commercial<br>Systems Site<br>Fallover | Complete             |
| April                |  |         |  |                        |               |                  |   |  |   |   |                      |  |                                    |                                      |  |   |               |  |                      |
| May                  |  |         |  |                        |               |                  |   |  |   |   |                      |  |                                    |                                      |  |   |               |  | Complete             |
|                      |  |         |  |                        |               |                  |   |  | No dista was fost and operations are normal.  |   | ASSESSED BY          |  | Tangla k                           |                                      |  |   |               | A. B. C.                               |                      |
| June                 |  |         | CALCON LINES.                                | SAN TOP BY             |               |                  |   |  |   | NEWS / 188                              |                      |  | September 1                        | -                                    | CHEST STREET   | CONTRACTOR DESCRIPTION OF THE PERSON NAMED IN | CANCEL STREET | -                                      |                      |
| July                 |  |         |  |                        |               |                  |   |  |   |   |                      |  |                                    |                                      |  |   |               |  | Complete<br>Complete |
| July                 | and the same of th | -       |  | CONTRACTOR OF STREET   |               | - Contract of    | CONTRACTOR OF STREET  | THE PERSON NAMED IN  | THE RESIDENCE AS A SECOND   | STREET, SQUARE,                         | CONTRACTOR OF STREET | Name and Post Of the Owner, where                      |                                    | MAIN SERVICE                         |  |   |               | STATE SALES                            | Complete             |
| August               | -  | -       | -  | Street, Square,        |               | -                | AND DESCRIPTION OF THE PERSON | AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUM |   |   |                      | CARLO BARROLD  | NAME OF TAXABLE PARTY.             | THE RESIDENCE OF THE PERSON NAMED IN |  |   |               | AND DESCRIPTION OF THE PERSON NAMED IN | Complete             |
| October              | <b>HARRIE</b>  |         | ALC: UNITED BY                               | NAME OF TAXABLE PARTY. | THE RESIDENCE | ALCOHOL: NAME OF | MANAGE STATE  |  | - THE RESIDENCE OF THE PERSON NAMED IN COLUMN   |   |                      |  | DESCRIPTION OF THE PERSON NAMED IN |                                      |  |   |               | THE SECOND                             | Compate              |
|                      |  |         |  |                        |               | 200              |   |  |   |   |                      |  |                                    |                                      |  |   |               | A STATE OF THE PERSON NAMED IN         | Complete             |
| overnber<br>overnber |  |         |  |                        |               |                  |   |  |   |   |                      |  |                                    |                                      |  |   |               |  | Complete             |
| ecember              |  |         |  |                        |               |                  |   |  |   |   |                      |  |                                    |                                      |  |   |               |  |                      |

# 2020 Retail Transaction Processing Service Availability 99.9% Service Availability Target Business Hours

| Month          | Service                       | Gross<br>Available<br>Minutes | Unplanned<br>Outage<br>Minutes | SLA-<br>Measured<br>Percent<br>Availability | SLA<br>Exception<br>Outage<br>Granted | Actual SLA<br>Exception<br>Minutes<br>Used | SLA<br>Exception<br>Percent<br>Availability |
|----------------|-------------------------------|-------------------------------|--------------------------------|---|---------------------------------------|--|---|
| January        | Retail Transaction Processing | 16,560                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| February       | Retail Transaction Processing | 14,400                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| March          | Retail Transaction Processing | 15,840                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| April          | Retail Transaction Processing | 15,120                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| Мау            | Retail Transaction Processing | 16,560                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| June           | Retail Transaction Processing | 14,400                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| July           | Retail Transaction Processing | 15,840                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| August         | Retail Transaction Processing | 16,560                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| September      | Retail Transaction Processing | 14,400                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| October        | Retail Transaction Processing | 16,560                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| November       | Retail Transaction Processing | 15,840                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| December       | Retail Transaction Processing | 15,120                        | 0                              | 100.00%                                     | 0                                     | 0  | 100.00%                                     |
| Jan - Dec 2020 | Retail Transaction Processing | 187,200<br>(to Jan 31)        | o                              | 100.00%                                     | o                                     | o  |   |

# 2020 Retail Transaction Processing Service Availability Availability Target Off Business Hours

99% Service Availability Target

| Management of the Control of the Con | i i i sili sila i i i j          | A COMPANY AND ADDRESS OF THE PARTY OF THE PA | 40 1 1 100 01 10 1           |                             |                                | The state of the s | CONTRACTOR OF THE PARTY OF THE | Attendance of the second second second     | And the second s |
|--|----------------------------------|--|------------------------------|-----------------------------|--------------------------------|--|---|--|--|
| Month  | Service                          | Gross<br>Available<br>Minutes  | Planned<br>Outage<br>Minutes | Net<br>Available<br>Minutes | Unplanned<br>Outage<br>Minutes | SLA-<br>Measured<br>Percent<br>Availabilit<br>Y  | SLA<br>Exception<br>Outage<br>Granted   | Actual SLA<br>Exception<br>Minutes<br>Used | SLA<br>Exception<br>Percent<br>Availability  |
| January  | Retail Transaction<br>Processing | 28,080   | 183                          | 27,897                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| February   | Retail Transaction<br>Processing | 25,920   | 0                            | 25,920                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| March  | Retail Transaction<br>Processing | 28,800   | 0                            | 28,800                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| April  | Retail Transaction<br>Processing | 28,080   | 0                            | 28,080                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| May  | Retail Transaction<br>Processing | 28,080   | 0                            | 28,080                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| June   | Retail Transaction<br>Processing | 28,800   | 0                            | 28,800                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| July   | Retail Transaction<br>Processing | 28,800   | 0                            | 28,800                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| August   | Retail Transaction<br>Processing | 28,080   | 0                            | 28,080                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| September  | Retail Transaction<br>Processing | 28,800   | 0                            | 28,800                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| October  | Retail Transaction<br>Processing | 28,080   | 0                            | 28,080                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| November   | Retail Transaction<br>Processing | 27,360   | 0                            | 27,360                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| December   | Retail Transaction<br>Processing | 29,520   | 0                            | 29,520                      | 0                              | 100.00%  | 0   | 0  | 100.00%  |
| Jan - Dec 2020   | Retail Transaction<br>Processing | 338,400<br>(to Jan 31)   | 183                          | 338,217                     | 0                              | 100.00%  | 0   | 0  |  |

#### 2020 MarkeTrak Service Availability

|                 |                  | MarkeTrak       |                  |               |
|-----------------|------------------|-----------------|------------------|---------------|
| Jan-20          | Availability (%) | Response Time   | (seconds)        | SLO (seconds) |
|                 |                  | Monthly Average | 12 Month Average |               |
| API QueryDetail | 100.000          | 1.43            | 1.73             | 2             |
| API QueryList   | 100.000          | 5.24            | 8.00             | 10            |
| API Update      | 100.000          | 1.32            | 1.56             | 10            |
| GUI             | 99.990           | 4.328           | 5.48             | 10            |
| Average         | 99.998           |                 |                  |               |
|                 |                  | MarkeTrak       |                  |               |
| Feb-20          | Availability (%) | Response Time   | (seconds)        | SLO (seconds) |
|                 |                  | Monthly Average | 12 Month Average |               |
| API QueryDetail | 100.000          | 1.03            | 1.64             | 2             |
| API QueryList   | 100.000          | 5.46            | 7.41             | 10            |
| API Update      | 100.000          | 1.18            | 1.18             | 10            |
| GUI             | 99.921           | 4.168           | 4.99             | 10            |
| Average         | 99.980           |                 |                  |               |
|                 |                  | MarkeTrak       |                  |               |
| Mar-20          | Availability (%) | Response Time   | (seconds)        | SLO (seconds) |
|                 |                  | Monthly Average | 12 Month Average |               |
| API QueryDetail | 100.000          | 1.34            | 1.58             | 2             |
| API QueryList   | 100.000          | 10.67           | 7.19             | 10            |
| API Update      | 100.000          | 1.08            | 1.45             | 10            |
| GUI             | 99.984           | 4.810           | 4.73             | 10            |
| Average         | 99.996           |                 |                  |               |

Degradation:

#### **Document Definition:**

This document is a summary of ERCOT IT incidents, or service delivery failures related to Data Extracts & Reports that have been designated as Priority 1 extracts & reports by the Settlements and Extracts Working Group This document also contains application availability reports for Market Data Transparency IT Applications

Spreadsheet Tab: Contents: This tab summarizes the annual cumulative number of incidents by root cause, when the timeliness, completeness or accuracy of extracts or reports occurred Ext Rpt Annual Summary: Ext Rpt Monthly Summary: This tab summarizes the number of incident types by month to inform the reader of what month to examine for detailed information regarding an incident when the timeliness, completeness or accuracy of extracts or reports was affected. Detailed Incident data: This tab contains the detailed information for each incident summarized on the annual and monthly tabs Retail API Availability Data Extracts & Reporting IT Application (Retail API) availability Extract & Report Info An information guide to extracts and reports provided by ERCOT to Market Participants MOS Public Reports Contains a list of MOSPUBLIC reports as an addendum to Extract & Report Information Guide **General Definitions:** Outage An unplanned change in ERCOT IT systems that prevents users from being able to access the systems

An event that causes the normal levels of ERCOT IT systems to be impacted while still allowing for minimal processing of or access to these systems

#### Incident Types, Impacts and Glossary of Terms

| Retail API ARE tail API outage caused by failure of the Retail API application (not infrastructure)  Database A data extracts & reporting service incident caused by a database outage  Infrastructure A data extracts & reporting service incident caused by an infrastructure failure (server, switch, etc)  Human Error A data extracts & reporting service incident caused by human error  Other A data extracts & reporting service incident that is not described by another defined incident type  Incident Any event that causes the agreed levels of service of ERCOT IT systems to be impacted  Slow System Performance A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries  Timeliness A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols or Maccuracty A data extracts & reporting service impact resulting in noncompliance of accuracy requirements of an extract or a report, as specified in Protocols or Maccuracy A data extracts & reporting service impact resulting in noncompliance of accuracy requirements of an extract or a report, as specified in Protocols or Maccuracy A data extracts & reporting service impact resulting in noncompliance of accuracy requirements of an extract or a report, as specified in Protocols or Maccuracy A data extracts & reporting service impact resulting in noncompliance of accuracy requirements of an extract or a report, as specified in Protocols or Maccuracy A data extracts & reporting service impact resulting in noncompliance of accuracy requirements of an extract or a report, as specified in Protocols or Maccuracy A data extracts & reporting service impact resulting in noncompliance of accuracy requirements of an extract or a report, as specified in Protocols or Maccuracy |  |
|--|--|
| Database A data extracts & reporting service incident caused by a database outage Infrastructure A data extracts & reporting service incident caused by an infrastructure failure (server, switch, etc) Human Error A data extracts & reporting service incident taused by human error Other A data extracts & reporting service incident that is not described by another defined incident type Incident Any event that causes the agreed levels of service of ERCOT IT systems to be impacted Slow System Performance A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries Timeliness A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M   |  |
| Database A data extracts & reporting service incident caused by a database outage Infrastructure A data extracts & reporting service incident caused by an infrastructure failure (server, switch, etc) Human Error A data extracts & reporting service incident taused by human error Other A data extracts & reporting service incident that is not described by another defined incident type Incident Any event that causes the agreed levels of service of ERCOT IT systems to be impacted Slow System Performance A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries Timeliness A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M   |  |
| Infrastructure  A data extracts & reporting service incident caused by an infrastructure failure (server, switch, etc)  Human Error  A data extracts & reporting service incident caused by human error  Other  A data extracts & reporting service incident that is not described by another defined incident type  Incident  Any event that causes the agreed levels of service of ERCOT IT systems to be impacted  Slow System Performance  A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries  Timeliness  A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols  Completeness  A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M  |  |
| Human Error  A data extracts & reporting service incident caused by human error  Other  A data extracts & reporting service incident that is not described by another defined incident type  Incident  Any event that causes the agreed levels of service of ERCOT IT systems to be impacted  Slow System Performance  A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries  Timeliness  A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols  Completeness  A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M  |  |
| Other A data extracts & reporting service incident that is not described by another defined incident type Incident Any event that causes the agreed levels of service of ERCOT IT systems to be impacted Slow System Performance A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries Timeliness A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M  |  |
| Incident Any event that causes the agreed levels of service of ERCOT IT systems to be impacted  Slow System Performance A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries  Timeliness A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols  Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M   |  |
| Slow System Performance A data extracts & reporting service impact resulting in abnormally slow or delayed response to extracts and reports queries  Timeliness A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols  Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M   |  |
| Timeliness A data extracts & reporting service impact resulting in noncompliance of delivery time requirements of an extract or a report, as specified in Protocols Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M   |  |
| Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M   |  |
| Completeness A data extracts & reporting service impact resulting in noncompliance of content requirements of an extract or a report, as specified in Protocols or M   | or Market Guides   |
| Accuracy A data extracts & reporting service impact resulting in noncompliance of accuracy requirements of an extract or a report, as specified in Protocols or  | arket Guides   |
|  | Market Guides  |
| Availability The ability of a component or IT service to perform its required function over a stated period of time  |  |
| Planned Outage A planned change in ERCOT IT systems that prevents users from being able to access the systems  | A SHOULD BE A PROPERTY OF THE PARTY OF THE P |
| Unplanned Outage An unplanned change or incident in ERCOT IT that prevents users from being able to access the systems   | A CONTRACTOR OF THE  |
| Gross minutes Total minutes in a month   |  |
| Net minutes Gross minutes minus planned outage minutes   | ACCOUNTY OF THE PARTY  |
| Planned outage minutes Minutes used by ERCOT during the maintenance and release windows  |  |
| Unplanned outage minutes Minutes retail transaction processing services were not available that are outside of the planned use of the maintenance and release windows  | NEW YEAR OF THE RES  |
| Exception outage minutes Minutes outside of the maintenance and release outage windows that have been granted exception from the availability metric (TX Set, etc.)  |  |
| Service availability percent The percent of time that retail transaction processing services were available, not including planned outage minutes  |  |

ERCOT IT incident Summary - 2020 Data Extracts & Reports and IT Applications Services

| nen          | Issue Date         | tuitial<br>Notification Date   | Notification (D                              | Start Time     | End Tims               | Buration<br>times   | Application<br>Impacted  | Extract or Report Impacted | Service impact<br>(Fineliness, Accuracy<br>Completeness or<br>Availability)  | Issue Description  | Rost Gause   | ERCOT<br>Protocols<br>Missed (VIII)     | Market<br>Participant Input | (BREOT loternal)<br>(BREOT loternal)   | Resolution  | Date (to be)<br>implemented          | Notes                                | Guirent Sta  |
|--------------|--------------------|--|--|----------------|------------------------|---------------------|--------------------------|----------------------------|--|--|--|---|-----------------------------|--|---|--------------------------------------|--------------------------------------|--|
| uary         | 1/17/20            | N/A  | N/A  | 10:45 AM       | 12:00 PM               | 75                  | MIS                      | N/A                        | Availability   | Access to ERCOT's Market<br>Information System (MIS) UI may have<br>been intermittent during this time.<br>The MIS API was available and not<br>impacted.                | Application issue  | N                                       | Y                           | ERCOT  | Application issue resolved  | N/A                                  |                                      | Complete   |
| Jary         | 1/17/20            | 1/16/20  | M-A011620-01<br>M-B011620-01                 | 3:30 PM        | 4:00 PM<br>7:00 PM     | 30<br>90            | EWS<br>MIS               | N/A<br>N/A                 | N/A<br>N/A   | Planned Maintenance Outage Planned Maintenance Outage  | Site Failover<br>Site Failover   | N<br>N                                  | N                           | ERCOT  | N/A<br>N/A  | N/A<br>N/A                           | Core Site Failover MIS Site Failover | Complete   |
| 2000         | 1/18/20            | 1/16/20  | M-B011620-01                                 | MANAGEMENT !   | 1:00 PM                | 60                  | MPIM, Retail API         | N/A                        | N/A  | Planned Maintenance Outage   | Site Fallover  | N                                       | N                           | ERCOT  | N/A   | N/A                                  | Commercial Systems Site Failover     |  |
| uary         | 2/18/20            | 2/18/2020  | M-B021820-02<br>M-B021820-01                 | 12:25 PM       | 3:03 PM                | 150                 | MPIM                     | N/A                        | Availability   | Users of ERCOT's Market Participant<br>Identity Management (MPIM)<br>application were unable to issue,<br>renew, or revoke client digital<br>certificates.               | Application issue  | N                                       | Y                           | ERCOT  | Application issue resolved  | N/A                                  |                                      | Complet  |
| ch           | 3/16/20<br>3/18/20 | 3/10/20<br>3/10/20   | M-A031020-02<br>M-A031020-01<br>M-B011620-01 | 3:30 PM        | 4:00 PM<br>7:00 PM     | 30                  | EWS<br>MIS               | N/A<br>N/A                 | N/A<br>N/A   | Planned Maintenance Outage Planned Maintenance Outage  | Site Fallover<br>Site Fallover   | N<br>N                                  | 2 2                         | ERCOT<br>ERCOT   | N/A<br>N/A  | N/A<br>N/A                           | Core Site Failover MIS Site Failover | Complete   |
|              |                    | LINE KARASA  | M-C031020-02                                 | SHARE SHARE    | STREET, STREET, ST. LE |                     | CONTRACTOR OF THE PARTY. | N/A                        | N/A  | EXCENSION SERVICE BUILDING SERVICE BY  | MODE EXPENSES TO THE PARTY OF   | , , ,                                   | N                           | AND DESCRIPTIONS   | SALES AND ADDRESS OF THE PARTY | THE PERSON NAMED IN                  | Commercial Systems                   | Complet  |
| ch           | 3/19/20            | 3/10/20<br>N/A   | M-C031020-01                                 | 9:51 AM        | 1:00 PM                | 60                  | MPIM, Retail API  MIS    | N/A                        |  | Planned Meintenance Outage Access to ERCOT's Market Information System (MIS) UI may have been intermittent during this time. The MIS API was available and not impacted. | Site Fallover  Application issue   | N                                       | Y                           | ERCOT  | N/A Application issue   | N/A                                  | Site Fallover                        | Complete   |
| CONTRACT CO. | 3/10/20            | N/A  | N/A  | 9.51 AM        | 10:06 AW               |                     | Mis                      | NA CONTRACTOR              | Availability   | unpactes.  | Application issue  | Name and Address of the Owner, where    | Maria Maria                 | ERCOT  | resolved  | N/A                                  | NAME OF TAXABLE PARTY.               | Complete   |
| il           |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  |   |                                      |                                      | Complete   |
|              |                    | 154  |  |                |                        |                     |                          |                            |  |  |  |   | 1, 1                        |  |   |                                      |                                      |  |
| il .         |                    |  |  |                | TO SHARE WELL THE      |                     | C DANSON SERVICE         |                            |  |  |  | ALC: UNKNOWN                            |                             | ALCOHOL:   | Maria Santa   |                                      |                                      | Complete   |
| y            |                    |  |  | -              |                        |                     | Barrier and Control      |                            |  |  |  |   |                             |  |   |                                      |                                      | Complete   |
|              | AUGUST 10          | TO A STATE OF THE PARTY OF   | No. of Street, Square,                       | 10000          |                        |                     | STORES OF THE            | CHECKEL SHOW SHOW          | San Landerson  | CHECKE STATE OF THE PARTY OF   | de la constante de la constant | San |                             | Contract of  | 100000000000000000000000000000000000000   |                                      |                                      | Complete   |
|              |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  |   |                                      |                                      | Complete   |
|              |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  |   |                                      |                                      | prostantinos de la constantino della constantino |
|              | and the second     | 270000000  |  | Name of Street | A CONTRACTOR           | April 19            |                          |                            |  |  |  |   |                             |  |   |                                      |                                      | Complete   |
|              |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  |   |                                      |                                      | Complete   |
|              |                    |  |  | -              |                        |                     |                          |                            |  |  |  |   |                             |  |   | Name and Address of the Owner, where |                                      | Complete   |
| st           |                    | Contract Con |  |                |                        |                     |                          |                            |  |  | en mer harrini teroloji dinimininani mbili on is mi  |   |                             |  |   |                                      |                                      | Complete   |
| st           |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  |   |                                      |                                      | Complete   |
| ber          |                    |  |  |                | NEC A STATE            | THE PERSON NAMED IN |                          |                            |  |  |  | -2                                      |                             |  |   |                                      |                                      | Complete   |
|              |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  |   |                                      |                                      |  |
| xer<br>xer   | 2022               | Line Line  |  |                | THE RESERVE            |                     | Manager Co.              |                            | Manager Labour Co.   |  | AND A COMPANY OF   | Control of the last                     |                             |  |   |                                      |                                      | Complete<br>Complete   |
| er           |                    |  |  |                |                        |                     |                          |                            | and the same of th |  |  |   |                             |  |   |                                      |                                      | Complete   |
| nber         |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  | -   |                                      |                                      | Complete   |
| ber          |                    |  |  |                |                        | Maria Maria         | 22 4000000               |                            |  |  |  |   | CHEST CONTRACTOR            |  |   |                                      |                                      | Complete   |
| ber<br>ber   |                    | SPENISOR OF THE  |  | MILE AND       |                        |                     |                          |                            | ALC: NAME OF TAXABLE PARTY.  | Bright Committee and Committee   | Carlot Section Section   |   |                             | NACTION AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS | Contract of the   | OF SCHOOL SECTION                    | EASTERN STREET                       | Complete<br>Complete   |
|              |                    |  |  |                |                        |                     |                          |                            |  |  |  |   |                             |  |   |                                      |                                      |  |

#### 2020 ERCOT.com Availability

99% Availability Target

| Month               | Service   | Gross Available<br>Minutes | Pianned Outage<br>Minutes | Net Available<br>Minutes | Onplanned<br>Outage Minutes | Percent<br>Availability |
|---------------------|-----------|----------------------------|---------------------------|--------------------------|-----------------------------|-------------------------|
| Example:<br>January | ERCOT.com | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| February            | ERCOT.com | 40,320                     | 0                         | 40,320                   | 0                           | 100.00%                 |
| March               | ERCOT.com | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| April               | ERCOT.com | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| May                 | ERCOT.com | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| June                | ERCOT.com | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| July                | ERCOT.com | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| August              | ERCOT.com | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| September           | ERCOT.com | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| October             | ERCOT.com | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| November            | ERCOT.com | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| December            | ERCOT.com | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| Jan - Dec<br>2020   | ERCOT.com | 525,600                    | o                         | 525,600                  | o                           | 100.00%                 |

#### Market Information System (MIS)

| January-20                                    | Application Availability (%)   |  |  |  |
|---|--|--|--|--|
| SLA   | 24x7   | (Calculated using the four MIS UI availabilities.) |  |  |
| MIS SLA                                       | 99.999   |  |  |  |
| 61 Summary 1/1/2020 12:00 AM-2/1/2020 12:00 A | M America/Chicego  |  |  |  |
| 7 R. S Rus P. A.                              |  |  |  |  |
| Amali i hani                                  |  |  |  |  |
| Data  |  |  |  |  |
| 11  |  |  |  |  |
|   |  | Application Availability (%)                       |  |  |
|   | Cls  | 24x7   |  |  |
| <b>O</b> MIS                                  |  | nu nu  |  |  |
| nProd MIS U. Downced SettlePaintF             | Rastin til And Take  | to ga  |  |  |
| © 01 MIS VI Selest Geriffeete                 | IDEPTITION OF THE PROPERTY OF  | 1000   |  |  |
| M 02 MIS UI Select RealTimeMarket             |  | 100,000  |  |  |
| © 03 MIS VI Select SettlePointPrice           | And the second s | 00 04  |  |  |
| (%) 03A MIS UI Valdete Report Frequ           |  | 100,000  |  |  |
| 04 MIS UI Valdete DownloadedFi                |  | 100.00   |  |  |
| AnProd MIS UI Download TempAdiDyn             |  | 100.000  |  |  |
| - 6 91 MIS VI Select Certificate              |  | 100.00   |  |  |
| - 6 02 MIS UI Select GridTransmission         |  | 100.000  |  |  |
| (%) 03 MIS UI Select TempAdiDynami            |  | 100.00   |  |  |
| 6 04 MIS UI DownloadFile TempAdi              |  | 100.00   |  |  |
| nProd MIS UI LaunchMISUI                      |  | 100.000  |  |  |
| 01 MIS UI Select Certificate                  |  | 100.00   |  |  |
| nProd MIS UI LaunchReports Extracts           | s Page   | 100.000  |  |  |
| 01 MIS UI Select Certificate                  |  | 100.00   |  |  |
| 02 MIS UI Select Reports Extracts             |  | 100.000  |  |  |
| nProd MIS API Get Reports                     |  | MO COV   |  |  |
| Request SOAP                                  | protection and the second  |  |  |  |
| Select Cert                                   |  | 100.00   |  |  |
| Set Security                                  |  | 0.00   |  |  |
| nProd MIS API Get SYSParams                   |  | 50.00  |  |  |
| Request SOAP                                  | And the second second  |  |  |  |

| February-20                                    | Application Availability (%)   |  |
|--|--|--|
| SLA  | 24x7   |  |
| MIS SLA  | 99.936   | (Calculated using the four MIS UI availabilities.) |
| 61 Summary 2/1/2020 12:00 AM-3/1/2020 12:00 AM | I America Chiesgo  |  |
| Y. 19 1 1 P. Huri P. A.                        |  |  |
|  |  |  |
|  |  |  |
|  |  | Application Availability (%)                       |
|  | Cls  | 21x7   |
| O MIS  |  | D 200  |
| An Prod MIS UI Download SettleFointPri         | ceHubLonsZone  | 100,000  |
| 6 01 MIS UI Select Certificate                 |  | 100 000  |
| 6 02 MIS UI Select ResiffmeMarket              |  | 100,000  |
| C3 MIS UI Select SettlePointFriceH             | <u>LibLoadZone</u>   | 100 000  |
| 3A MIS UI Valdate Report Freque                | ency 16 Minutes  | 160 000  |
| 6 Q4 MIS UI Validate DownloadedFile            | Settle Point Price Hubbard Zone  | 100 000  |
| Prod MIS UI Download TempAciDyns               | micRetings   | 60743  |
| 01 MIS UI Select Certificate                   |  | 100.000  |
| © 02 MIS UL Select Grid Transmission           |  | 100 000  |
| Q3 MIS UI Select TempAdiDynamic                | Ratings  | 100 000  |
| 04 MIS UI DownloadFile TempAdiD                | ynamicRatings  | 68.970   |
| nProd MIS UI LaunchMISUI                       |  | 100 000  |
| 01 MIS UI Select Certificate                   |  | 100 000  |
| nProc MIS UI LaunchReports Extracts            | Page   | 100,000  |
| 01 MIS UI Select Certificate                   | The state of the s | 100,000  |
| 02 MIS UI Select Reports Extracts              |  | 100.000  |
| Prod MIS API Get Reports                       |  | 40006  |
| Request SOAP                                   |  |  |
| Select_Cert                                    |  | 100,000  |
| Set Security                                   | ALCOHOLOGICA CONTRACTOR OF THE PROPERTY OF THE | 0.000  |



| March-20                                      | Application Availability (%)  |  |
|---|---|--|
| SLA   | 24x7  |  |
| MIS SLA                                       | 99.989  | (Calculated using the four MIS UI availabilities.) |
| GI Summery 3/1/2020 12:00 AM-4/1/2020 12:00 A | M America/Chicago   |  |
| Y, 🍂 · 🛊 🖟 Run • · 🔥 ·                        |   |  |
| Defe  |   |  |
| 7 m   |   |  |
|   |   | Application Availability (%)                       |
|   | Cle   | 2Ax7   |
| O MIS   |   | to 2   |
| A riProd MIS UI Download SettlePointP         | rise HubLoadZare  | 99.99  |
| Q1 MIS UI Select Certificate                  |   | 100,00   |
| 6 02 MIS UI Select RealTimeMarket             |   | 100,00   |
| 6 03 MIS UI Select SettleFornFrice            | HublicedZone  | <b>60</b> 00                                       |
| 03A MIS UI Validate Report Frequency          | usnay 16 Minutes  | 100.00   |
| 04 MIS UI Validate DownloadedFi               | le SettleFointPripeHybLcadZone  | 100.00   |
| Frad MIS UI Download TempAdiDyr               | nemicRatings  | 60 A   |
| 01 MIS UI Select Certificate                  |   | 100.00   |
| 02 MIS UI Select GridTransmissio              |   | 100 00   |
| 03 MIS UI Select TempAdiDynam                 | icRatings   | <b>Q.55</b>  |
| 04 MIS UI DownloadFile TempAdi                | Dynamic Ratings   | 100,00   |
| - Prod MIS UI LaunchMISUI                     |   | 100.00   |
| 01 MIS UI Select Certificate                  |   | 100 00   |
| - Prod MIS UI LaunchReports Extract           | s Page  | 9.77   |
| 01 MIS UI Select Certificate                  |   | 90.05  |
| 02 MIS UI Select Reports Extract              | S Company and the company and | 100.00   |
| Prod MIS API Get Reports                      |   | 50.00  |
| Request SOAP                                  |   |  |





#### 2020 MPIM Availability

95% Availability Target

| Month             | Service | Gross Available<br>Minutes | Pianned Outage<br>Minutes | Minutes | Onplanned<br>Outage Minutes | Percent<br>Availability |
|-------------------|---------|----------------------------|---------------------------|---------|-----------------------------|-------------------------|
| January           | MPIM    | 44,640                     | 60                        | 44,580  | 0                           | 100.00%                 |
| February          | MPIM    | 40,320                     | 0                         | 40,320  | 158                         | 99.61%                  |
| March             | MPIM    | 44,640                     | 0                         | 44,640  | 0                           | 100.00%                 |
| April             | МРІМ    | 43,200                     | 0                         | 43,200  | 0                           | 100.00%                 |
| May               | MPIM    | 44,640                     | 0                         | 44,640  | 0                           | 100.00%                 |
| June              | МРІМ    | 43,200                     | 0                         | 43,200  | 0                           | 100.00%                 |
| July              | MPIM    | 44,640                     | 0                         | 44,640  | 0                           | 100.00%                 |
| August            | MPIM    | 44,640                     | 0                         | 44,640  | 0                           | 100.00%                 |
| September         | MPIM    | 43,200                     | 0                         | 43,200  | 0                           | 100.00%                 |
| October           | MPIM    | 44,640                     | 0                         | 44,640  | 0                           | 100.00%                 |
| November          | MPIM    | 43,200                     | 0                         | 43,200  | 0                           | 100.00%                 |
| December          | МРІМ    | 44,640                     | 0                         | 44,640  | 0                           | 100.00%                 |
| Jan - Dec<br>2020 | МРІМ    | 525,600                    | 60                        | 525,540 | 158                         | 99.97%                  |

#### 2020 Retail API Availability

99% Availability Target

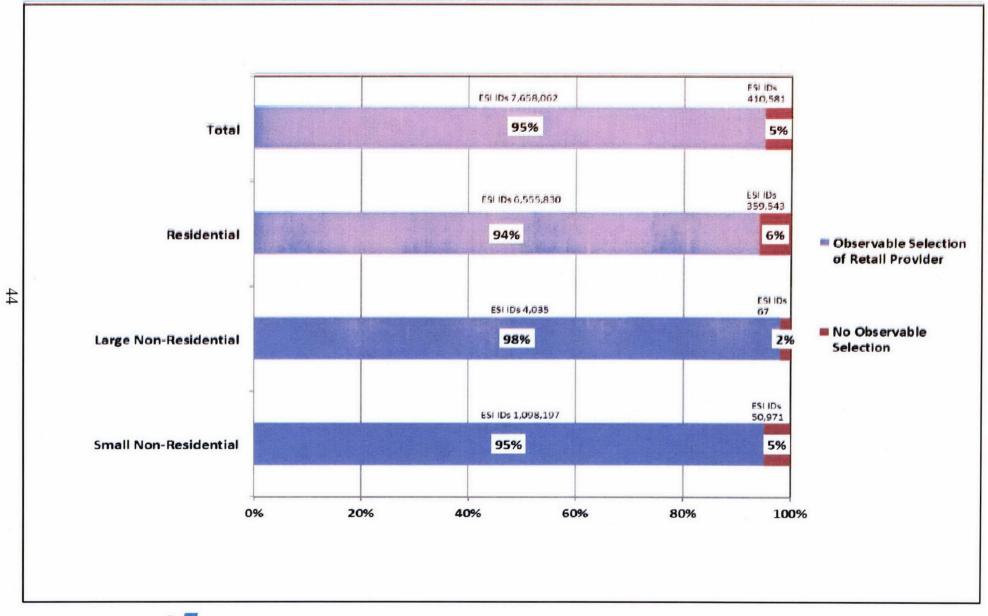
| Month             | Service                | Gross Available<br>Minutes | Pianned Outage<br>Minutes | Met Available<br>Minutes | Onplanned<br>Outage Minutes | Percent<br>Availability |
|-------------------|------------------------|----------------------------|---------------------------|--------------------------|-----------------------------|-------------------------|
| January           | Retail API Application | 44,640                     | 60                        | 44,580                   | 0                           | 100.00%                 |
| February          | Retail API Application | 40,320                     | 0                         | 40,320                   | 0                           | 100.00%                 |
| March             | Retail API Application | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| April             | Retail API Application | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| May               | Retail API Application | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| June              | Retail API Application | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| July              | Retail API Application | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| August            | Retail API Application | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| September         | Retail API Application | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| October           | Retail API Application | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| November          | Retail API Application | 43,200                     | 0                         | 43,200                   | 0                           | 100.00%                 |
| December          | Retail API Application | 44,640                     | 0                         | 44,640                   | 0                           | 100.00%                 |
| Jan - Dec<br>2020 | Retail API Application | 525,600                    | 60                        | 525,540                  | o                           | 100.00%                 |



# Supplemental Information Retail Electric Market

March 2019 - March 2020

## Observable Selection of Electric Provider





## Observable Selection of Electric Provider - Definition

The percentage of ESI IDs represented in blue with an "Observed Selection" Includes:

- ESI IDs created after the start of full Retail Competition in 2002
- ESI IDs that have had at least one change to the initially established default Rep of Record relationship since the start of Retail Competition in 2002

The percentage of ESI IDs represented in red without an "Observed Selection" includes:

 ESI IDs that have never had a change to the initially established default Rep of Record relationship since the start of Retail Competition in 2002

These statistics are based on the data available in ERCOT's retail registration system



# Competitive Retail Market Activity

