



## **Item 7: Key Performance Indicator (KPI) Review**

*Betty Day*

VP, Governance Risk & Compliance

Human Resources and Governance Committee  
Meeting

ERCOT Public  
December 12, 2016

# Item 7.1 Q3 2016 KPI Review

# Q3-2016 Key Performance Indicator (KPI) Summary

We serve the public by ensuring a reliable grid, efficient electricity markets, open access and retail choice.

	YTD - 2016			Q3 - 2016			Q2 - 2016			Q1 - 2016		
	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below
<b>RELIABLE GRID</b>												
Grid Security Management / Real-Time System Control / Scheduling & Dispatch												
Outage Coordination / Planning												
Forecasting	50%	50%					50%	50%				
Compliance Monitoring & Reporting	67%	33%								67%	33%	
IT Application Services	66%	17%	17%	50%	17%	33%	67%	33%		67%	33%	
<b>EFFICIENT ELECTRICITY MARKETS</b>												
Bidding, Scheduling and Pricing												
Settlement & Billing	50%	50%		50%	50%		50%	50%				
Market Credit												
Market Information												
IT Application Services												
<b>OPEN ACCESS &amp; RETAIL CHOICE</b>												
Customer Switching / Registry												
Market Information												
IT Application Services				50%	50%							
<b>OTHER SUPPORT &amp; MANAGEMENT FUNCTIONS</b>												
Finance												
Security												
<b>Total number of KPIs tracked:</b>	<b>30</b>			<b>30</b>			<b>30</b>			<b>30</b>		
<b>% meeting Stretch:</b>	<b>63%</b>			<b>63%</b>			<b>63%</b>			<b>70%</b>		
<b>% meeting Target:</b>	<b>30%</b>			<b>30%</b>			<b>37%</b>			<b>27%</b>		
<b>% below Target:</b>	<b>7%</b>			<b>7%</b>			<b>0%</b>			<b>3%</b>		

KPI	Executive	Capability	KPI Description	Target	Stretch	2016 YTD	2016 Q3	2016 Q2	2016 Q1
RG 7	Day, Betty	Compliance Monitoring & Reporting	Achieve compliance with ERCOT Protocols	No significant violations of ERCOT Protocols	N/A	ERCOT has filed two significant protocol violations with the PUCT.	No significant violations of ERCOT protocols.	No significant violations of ERCOT protocols.	Filed two Protocol violations with PUCT.
RG 11	Dreyer, Jerry	IT Application Services	Security Constrained Economic Dispatch (SCED) Availability	99.9%	99.95%	99.96%	99.89%	100%	100%
RG 12	Dreyer, Jerry	IT Application Services	Security Constrained Economic Dispatch (SCED): number of unplanned outages greater than 30 consecutive minutes (per quarter)	Zero	N/A	2	2	Zero	Zero



# Appendix – Q3 2016 KPI Report

# Q3-2016 KPI Detail – Reliable Grid

KPI ID	KPI Description	2016 Target Performance	2016 Stretch Performance	2016 YTD	Q3	Q2	Q1
<b>Grid Security Management / Real-Time System Control / Scheduling &amp; Dispatch</b>							
RG 1	Control Performance Standard 1 (CPS1) frequency control performance (rolling 12 month CPS1 score).	> 140	> 150	CPS1 Score of 176.75% (end of September 2016)	CPS1 Score of 176.75% (end of September 2016)	CPS1 Score of 176.09% (end of June 2016)	CPS1 Score of 175.53% (end of March 2016)
RG 2	Interconnection Reliability Operating Limit (IROL) exceedance limitations.	None longer than 20 minutes	None longer than 10 minutes	No exceedances	No exceedances	No exceedances	No exceedances
<b>Outage Coordination / Planning</b>							
RG 3	Outage Coordination performance: requests approved or denied within timeline and with mitigation plans developed if required.	97%	99%	99.5%	99.4%	99.4%	99.6%
<b>Forecasting</b>							
RG 4	Operations Load Forecast performance - Mean Average Percent Error (MAPE): monthly average day ahead load forecasts used for DRUC MAPE.	All less than 4.0%	All less than 3.5%	Highest MAPE was 3.86% (May)	Highest MAPE was 2.22% (August)	Highest MAPE was 3.86% (May)	Highest MAPE was 3.22% (January)
RG 5	Wind forecast performance - MAPE based on installed wind capacity: monthly average day ahead wind forecasts used for DRUC MAPE.	All less than 15%	All less than 10%	Less than or equal to 6.90%	July-5.81 %, August-5.80 % and September 5.10 %	April-5.96 %, May-6.88 % and June 5.23 %	Jan-6.03%, Feb-5.67% and Mar-6.90%
<b>Compliance Monitoring &amp; Reporting</b>							
RG 6	Achieve compliance with NERC/FERC Standards	No significant violations found in a NERC Compliance Audit	N/A	No significant violations found in a NERC Compliance Audit.	No significant violations found in a NERC Compliance Audit.	No significant violations found in a NERC Compliance Audit.	No significant violations found in a NERC Compliance Audit.
RG 7	Achieve compliance with ERCOT Protocols	No significant violations of ERCOT Protocols	N/A	Filed two Protocol violations with PUCT.	No significant violations of ERCOT protocols.	No significant violations of ERCOT protocols.	Filed two Protocol violations with PUCT.
RG 8	Achieve compliance with SSAE16 controls	No exceptions found in an SSAE16 audit	N/A	No exceptions found in an SSAE16 audit	No exceptions found in an SSAE16 audit	No exceptions found in an SSAE16 audit	No exceptions found in an SSAE16 audit
<b>IT Application Services</b>							
RG 9	Energy Management System Tier 1 Aggregate Availability	All Tier 1 systems meet or exceed defined SLAs (99.90%)	N/A	99.99%	99.97%	100%	100%
RG 10	Energy Management System Tier 2 Aggregate Availability	Achieve 99% availability for 10 of 11 Tier 2 systems	Achieve 99% availability for all Tier 2 systems	99.99%	99.97%	100%	100%
RG 11	Security Constrained Economic Dispatch (SCED) Availability	99.9%	99.95%	99.96%	99.89%	100%	100%
RG 12	Security Constrained Economic Dispatch (SCED): number of unplanned outages greater than 30 consecutive minutes (per quarter)	Zero	N/A	2	2	Zero	Zero
RG 13	Outage Scheduler Availability	99%	99.5%	100%	100%	100%	100%
RG 14	Network Model Management System (NMMS) Availability.	99%	99.5%	100%	100%	100%	100%

# Q3-2016 KPI Detail – Efficient Electricity Markets

KPI ID	KPI Description	2016 Target Performance	2016 Stretch Performance	2016 YTD	Q3	Q2	Q1
<b>Bidding, Scheduling and Pricing</b>							
EM 1	DAM quality of solution as measured with price corrections: percent of hourly prices requiring DAM price correction.	1-3 % of time	< 1 % of time	0.001%	0.00%	0.004%	0.00%
EM 2	SCED solution is solved and posted: percent of 15-minute Settlement Interval prices where price corrections are performed.	0.5% -- 1%	< 0.5%	0.058%	0.147%	0.00%	0.03%
<b>Settlement &amp; Billing</b>							
EM 3	Achieve timely settlements, per Protocol defined timelines.	99%	100%	100%	100%	100%	100%
EM 4	Perform accurate settlements as measured by the percent of Operating Day and operating month settlement that does not require a correction as a result of an error in the settlement and billing systems or processes.	98%	99.9%	99.78%	99.78%	99.55%	100%
<b>Market Credit</b>							
EM 5	Credit reports are correct and posted in a timely manner.	98%	100%	99.98%	100.00%	99.95%	99.99%
<b>Market Information</b>							
EM 6	Wholesale extracts available per Protocol timelines	98%	99%	99.92%	99.90%	99.89%	99.97%
<b>IT Application Services</b>							
EM 7	Congestion Revenue Rights (CRR) Availability	99%	99.5%	100%	100%	100%	100%
EM 8	Market Management System Aggregate Availability	99%	99.5%	99.96%	99.89%	100%	100%

# Q3-2016 KPI Detail – Open Access & Retail Choice

KPI ID	KPI Description	2016 Target Performance	2016 Stretch Performance	2016 YTD	Q3	Q2	Q1
Customer Switching / Registry							
OARC 1	Conduct retail transaction processing per Protocol timelines	98%	99%	99.97%	99.95%	99.99%	99.96%
OARC 2	End use customer switch notifications processed per PUCT rules	99%	100%	100%	100%	100%	100%
Market Information							
OARC 3	Retail extracts available per Protocol timelines	98%	99%	99.86%	100%	99.57%	100%
IT Application Services							
OARC 4	Retail Processing Availability - Bus. Hours	99.5%	99.7%	99.84%	99.51%	100%	100%
OARC 5	Market Information System (MIS) Availability	99%	99.5%	99.90%	99.91%	99.88%	99.91%

# Q3-2016 KPI Detail – Other Support & Management Functions

KPI ID	KPI Description	2016 Target Performance	2016 Stretch Performance	2016 YTD	Q3	Q2	Q1
Finance							
OSM 1	Manage spending to be equal to or less than the board-approved expenditure budget for 2016.	Between 0 -- 5% favorable variance	N/A	12.7% Favorable	10.4% Favorable	8.5% Favorable	18.9% Favorable
Security							
OSM 2	Maintain ERCOT ISO's security posture against cyber security threats as defined in the Security Incident Response Plan	Zero externally reportable cyber security incidents	N/A	Zero reportable cyber security incidents.	Zero reportable cyber security incidents.	Zero reportable cyber security incidents.	Zero reportable cyber security incidents.
OSM 3	Maintain ERCOT ISO's security posture against physical security threats as defined in the Security Incident Response Plan	Zero externally reportable physical security incidents	N/A	Zero reportable physical security incidents.	Zero reportable physical security incidents.	Zero reportable physical security incidents.	Zero reportable physical security incidents.



# **Item 7.2 Recommendations regarding Proposed 2017 ERCOT KPIs**

# 2017 Key Performance Indicators (KPIs)

- Maintain 29 Board reported KPIs and 22 internal KPIs

Year	Total KPIs	Reported to Board	Tracked Internally
2011	77	77	0
2012	70	70	0
2013	67	67	0
2014	61	30	31
2015	53	30	23
2016	52	30	22
2017	51	29	22

- Proposed revisions to five KPI metrics:
  - RG 7, Compliance Monitoring & Reporting
  - RG 10, EMS Tier 2 Aggregate Availability
  - RG 11, SCED Availability
  - OARC 4, Retail Processing Availability – Business Hours
  - OSM\_i5, Executing Internal Audit Plan

# 2017 KPI Recommendation – Reliable Grid

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
RG 1	Rickerson	Grid Security Management / Real Time System Control / Scheduling & Dispatch	Control Performance Standard 1 (CPS1) frequency control performance (rolling 12 month CPS1 score).	> 140	> 150
RG 2	Rickerson	Grid Security Management / Real Time System Control / Scheduling & Dispatch	Interconnection Reliability Operating Limit (IROL) exceedance limitations.	None longer than 20 minutes	None longer than 10 minutes
RG 3	Rickerson	Outage Coordination / Planning	Outage Coordination performance: requests approved or denied within timeline and with mitigation plans developed if required.	97%	99%
RG 4	Rickerson	Forecasting	Operations Load Forecast performance - Mean Average Percent Error (MAPE): monthly average day ahead load forecasts used for DRUC MAPE.	All less than 4.0%	All less than 3.5%
RG 5	Rickerson	Forecasting	Wind forecast performance - MAPE based on installed wind capacity: monthly average day ahead wind forecasts used for DRUC MAPE.	All less than 15%	All less than 10%
RG 6	Day	Compliance Monitoring & Reporting	Achieve compliance with NERC/FERC Standards	No significant violations found in a NERC Compliance Audit	N/A
<del>RG 7</del>	<del>Day</del>	<del>Compliance Monitoring &amp; Reporting</del>	<del>Achieve compliance with ERCOT protocols</del>	<del>No significant violations of ERCOT protocols</del>	<del>N/A</del>
RG 8	Day	Compliance Monitoring & Reporting	Achieve compliance with SSAE16 controls	No exceptions found in an SSAE16 audit	N/A
RG 9	Dreyer	IT Application Services	Energy Management System Tier 1 Aggregate Availability	All Tier 1 systems meet or exceed defined SLAs	N/A
RG 10	Dreyer	IT Application Services	Energy Management System Tier 2 Aggregate Availability	Achieve <u>99% 99.9%</u> availability for 10 of 11 Tier 2 systems	Achieve <u>99% 99.9%</u> availability for all Tier 2 systems
RG 11	Dreyer	IT Application Services	Security Constrained Economic Dispatch (SCED) Availability	<u>99.9% 99.95%</u>	<u>99.95% 100%</u>
RG 12	Dreyer	IT Application Services	Security Constrained Economic Dispatch (SCED): number of unplanned outages greater than 30 consecutive minutes (per quarter)	Zero	N/A
RG 13	Dreyer	IT Application Services	Outage Scheduler Availability	99%	99.5%
RG 14	Dreyer	IT Application Services	Network Model Management System (NMMS) Availability.	99%	99.5%



# 2017 KPI Recommendation – Reliable Grid (Internal)

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
RG_i 15	Dreyer	IT Application Services	HRUC executed every hour: percent of complete HRUC's per month, including ones missed due to database loads and site failover.	99%	99.5%
RG_i 16	Dreyer	IT Application Services	No loss of VSAT/TSAT application functionality for 30 continuous minutes or longer, excluding invalid solutions due to State Estimator dependencies and planned site failovers.	3 per Quarter	1 per Quarter
RG_i 17	Rickerson	System Planning	Regional Planning project Review Studies completed on time without substantive error.	95% complete on time or no more than 1 late if less than 20 projects.	99% complete on time.
RG_i 18	Rickerson	Transmission Connection Management	Generation Interconnection Request (GIR) screening studies completed on time without errors.	95% completed on time or no more than 1 late if less than 20 GIRs	100% completed on time
RG_i 19	Rickerson	Compliance Monitoring & Reporting	Required Planning Report performance	No more than two reports required by PUCT Rule, DOE project, NERC or State law filed late or with error.	100% of reports required by PUCT Rule, DOE project, NERC or State law completed on time without errors.

# 2017 KPI Recommendation – Efficient Markets

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
EM 1	Ogelman	Bidding, Scheduling & Pricing	DAM quality of solution as measured with price corrections: percent of hourly prices requiring DAM price correction.	1-3 % of time	< 1 % of time
EM 2	Ogelman	Bidding, Scheduling & Pricing	SCED solution is solved and posted: percent of 15-minute Settlement Interval prices where price corrections are performed.	0.5% -- 1%	< 0.5%
EM 3	Ogelman	Settlement & Billing	Achieve timely settlements, per Protocol defined timelines.	99%	100%
EM 4	Ogelman	Settlement & Billing	Perform accurate settlements as measured by the percent of Operating Day and operating month settlement that does not require a correction as a result of an error in the settlement and billing systems or processes.	98%	99.9%
EM 5	Ogelman	Market Credit	Credit reports are correct and posted in a timely manner.	98%	100%
EM 6	Gage	Market Information	Wholesale extracts available per Protocol timelines	98%	99%
EM 7	Dreyer	IT Application Services	Congestion Revenue Rights (CRR) Availability	99%	99.5%
EM 8	Dreyer	IT Application Services	Market Management System Aggregate Availability	99%	99.5%

# 2017 KPI Recommendation – Efficient Markets (Internal)

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
EM_i 9	Ogelman	Bidding, Scheduling & Pricing	Percent of days with successful DAM execution solution completed and posted successfully.	100%	n/a
EM_i 10	Ogelman	Bidding, Scheduling & Pricing	DAM executions completed in acceptable timeframe: percent of days with posting solution before 1600.	98%	100%
EM_i 11	Ogelman	Bidding, Scheduling & Pricing	Ancillary Services Requirements posted for the year	Posted by December 20th of the previous year for the current year	N/A
EM_i 12	Ogelman	Wholesale Metering, Data Collection & Data Aggregation	AMS interval data is loaded into ERCOT systems by final settlement from the MRE in accordance with Protocols for data loading.	99%	99.75%
EM_i 13	Ogelman	Wholesale Metering, Data Collection & Data Aggregation	IDR meter data is loaded into ERCOT systems by true-up settlement from the MRE in accordance with Protocols for settlement.	99%	99.75%
EM_i 14	Ogelman	Wholesale Metering, Data Collection & Data Aggregation	EPS meter data is accurate and complete as measured by the percent of data that doesn't change after an initial settlement	99%	99.9%
EM_i 15	Ogelman	CRR Management	CRR auctions are performed according to Nodal Protocols Requirements (7.5.1). CRR auctions results are validated and posted as required by the CRR Activity Calendar	All Monthly Auctions and LTASs are posted on time per the CRR Activity Calendar	All Monthly Auctions are posted on time and all LTASs are posted one week earlier than required by the CRR Activity Calendar
EM_i 16	Gage	Dispute Management	Process disputes within protocol timelines	98%	100%
EM_i 17	Gage	Client Services	Establish and Maintain Account Plans and execute per guidelines and schedule.	98%	100%
EM_i 18	Gage	Account Management	Achieve "Very Satisfied" or "Satisfied" ratings on annual survey of Account Management services	90% satisfied or highly satisfied	95% satisfied or highly satisfied

# 2017 KPI Recommendation – Open Access & Retail Choice (Board & Internal)

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
OARC 1	Ogelman	Customer Switching / Registry	Conduct retail transaction processing per Protocol timelines	98%	99%
OARC 2	Ogelman	Customer Switching / Registry	End use customer switch notifications processed per PUCT rules	99%	100%
OARC 3	Gage	Market Information	Retail extracts available per Protocol timelines	98%	99%
OARC 4	Dreyer	IT Application Services	Retail Processing Availability - Bus. Hours	<del>99.5%</del> <u>99.9%</u>	<del>99.7%</del> <u>99.95%</u>
OARC 5	Dreyer	IT Application Services	Market Information System (MIS) Availability	99%	99.5%
OARC_i 6	Dreyer	IT Application Services	Retail Processing Availability - Non bus. Hours	99%	99.5%
OARC_i 7	Dreyer	IT Application Services	Retail API Availability	99%	99.5%
OARC_i 8	Dreyer	IT Application Services	MarkeTrak Availability	99%	99.5%
OARC_i 9	Ogelman	Dispute Management	Manage retail transaction issues and disputes within defined timelines	96%	98%

# 2017 KPI Recommendation – Other Support & Management Functions (Board & Internal)

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
OSM 1	Petterson	Finance	Manage spending to be equal to or less than the board-approved expenditure budget for 2016.	Between 0 -- 5% favorable variance	n/a
OSM 2	Day	Security	Maintain ERCOT ISO's security posture against cyber security threats as defined in the Security Incident Response Plan	Zero externally reportable cyber security incidents	N/A
OSM 3	Day	Security	Maintain ERCOT ISO's security posture against physical security threats as defined in the Security Incident Response Plan	Zero externally reportable physical security incidents	N/A
OSM_i 4	Dreyer	IT Application Services	Operate data centers providing availability consistent with data center designed objectives.	99.98%	100%
OSM_i 5	Magness	Internal Audit	Execute the Internal Audit Plan as approved by the Finance and Audit Committee, <del>and complete the plan</del> <u>having all audit projects in process</u> by end of year.	100% <u>in process</u> by year end	N/A
OSM_i 6	Gage	Corporate Communications	ERCOT Energy Emergency Alert Communications -- Corporate Communications provides follow-up communications and media/public notifications per Crisis Communications Procedure.	100%	N/A



**The Human Resources and Governance (HR&G) Committee is expected to consider HR&G Committee Agenda Item 7.2:**

***Recommendation regarding  
Proposed 2017 ERCOT KPIs***

**at its meeting on December 12, 2016.**

**The Board of Directors is expected to hear the HR&G Committee's recommendation on this matter as part of the HR&G Committee Report at the Board meeting on December 13, 2016.**

**Attached are the Board materials in relation to these agenda items.**



**Date:** December 6, 2016  
**To:** Board of Directors  
**From:** Bill Magness, President and Chief Executive Officer  
**Subject:** 2017 ERCOT Key Performance Indicators (KPIs)

**Issue for the ERCOT Board of Directors**

**ERCOT Board of Directors Meeting Date:** December 13, 2016

**Item No.:** 11.1

**Issue:**

Whether the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) should approve the 2017 ERCOT KPIs as recommended by ERCOT staff.

**Background/History:**

The ERCOT leadership team annually develops specific key performance indicators and corresponding target metrics to drive performance of the organization. The indicators, along with their specific measurements are outlined in the 2017 KPIs. The KPIs are reviewed on a quarterly basis and are used to measure the successful performance of the organization. It is important that the leadership team and the ERCOT Board of Directors (Board) are aligned on the specific goals and focus of ERCOT for 2017.

The Human Resource and Governance (HR&G) Committee is expected to consider whether to recommend that the Board approve the 2017 KPIs as presented at its meeting on December 12, 2016. A copy of the proposed 2017 KPI Matrix is attached hereto as Attachment A.

**Key Factors Influencing Issue:**

The 2017 KPIs correlate to ERCOT's strategic direction of the Board and provide performance measures to the Board and ERCOT leadership and staff.

**Conclusion/Recommendation:**

The ERCOT leadership team recommends that the HR&G Committee recommend approval and that the ERCOT Board approve the 2017 KPIs as presented.



**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

WHEREAS, after due consideration of the alternatives, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to accept the recommendations of ERCOT staff and the Human Resources and Governance Committee to approve the 2017 ERCOT Key Performance Indicators (KPIs) attached hereto as Attachment A; and

THEREFORE, BE IT RESOLVED, that the 2017 ERCOT KPIs, attached hereto as Attachment A, are hereby authorized and approved.

**CORPORATE SECRETARY'S CERTIFICATE**

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its December 13, 2016 meeting, the ERCOT Board passed a motion approving the above Resolution by \_\_\_\_\_.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_ day of December, 2016.

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Vickie G. Leady  
Assistant Corporate Secretary

**Attachment A**  
**Proposed 2017 ERCOT Key Performance Indicators (KPIs)**

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
RG 1	Rickerson, Woody	Grid Security Management / Real Time System Control / Scheduling & Dispatch	Control Performance Standard 1 (CPS1) frequency control performance (rolling 12 month CPS1 score).	> 140	> 150
RG 2	Rickerson, Woody	Grid Security Management / Real Time System Control / Scheduling & Dispatch	Interconnection Reliability Operating Limit (IROL) exceedance limitations.	None longer than 20 minutes	None longer than 10 minutes
RG 3	Rickerson, Woody	Outage Coordination / Planning	Outage Coordination performance: requests approved or denied within timeline and with mitigation plans developed if required.	97%	99%
RG 4	Rickerson, Woody	Forecasting	Operations Load Forecast performance - Mean Average Percent Error (MAPE): monthly average day ahead load forecasts used for DRUC MAPE.	All less than 4.0%	All less than 3.5%
RG 5	Rickerson, Woody	Forecasting	Wind forecast performance - MAPE based on installed wind capacity: monthly average day ahead wind forecasts used for DRUC MAPE.	All less than 15%	All less than 10%
RG 6	Day, Betty	Compliance Monitoring & Reporting	Achieve compliance with NERC/FERC Standards.	No significant violations found in a NERC Compliance Audit	N/A
<del>RG 7</del>	<del>Day, Betty</del>	<del>Compliance Monitoring &amp; Reporting</del>	<del>Achieve compliance with ERCOT protocols</del>	<del>No significant violations of ERCOT protocols</del>	<del>N/A</del>
RG 8	Day, Betty	Compliance Monitoring & Reporting	Achieve compliance with SSAE16 controls.	No exceptions found in an SSAE16 audit	N/A
RG 9	Dreyer, Jerry	IT Application Services	Energy Management System Tier 1 Aggregate Availability	All Tier 1 systems meet or exceed defined SLAs	N/A
RG 10	Dreyer, Jerry	IT Application Services	Energy Management System Tier 2 Aggregate Availability	Achieve <b>99% 99.9%</b> availability for 10 of 11 Tier 2 systems	Achieve <b>99% 99.9%</b> availability for all Tier 2 systems
RG 11	Dreyer, Jerry	IT Application Services	Security Constrained Economic Dispatch (SCED) Availability	<b>99.9% 99.95%</b>	<b>99.95% 100%</b>
RG 12	Dreyer, Jerry	IT Application Services	Security Constrained Economic Dispatch (SCED): number of unplanned outages greater than 30 consecutive minutes (per quarter)	Zero	N/A
RG 13	Dreyer, Jerry	IT Application Services	Outage Scheduler Availability	99%	99.5%
RG 14	Dreyer, Jerry	IT Application Services	Network Model Management System (NMMS) Availability	99%	99.5%
RG_i 15	Dreyer, Jerry	IT Application Services	HRUC executed every hour: percent of complete HRUC's per month, including ones missed due to database loads and site failover.	99%	99.5%
RG_i 16	Dreyer, Jerry	IT Application Services	No loss of VSAT/TSAT application functionality for 30 continuous minutes or longer, excluding invalid solutions due to State Estimator dependencies and planned site failovers.	3 per Quarter	1 per Quarter
RG_i 17	Rickerson, Woody	System Planning	Regional Planning project Review Studies completed on time without substantive error.	95% complete on time or no more than 1 late if less than 20 projects.	99% complete on time.
RG_i 18	Rickerson, Woody	Transmission Connection Management	Generation Interconnection Request (GIR) screening studies completed on time without errors.	95% completed on time or no more than 1 late if less than 20 GIRs	100% completed on time
RG_i 19	Rickerson, Woody	Compliance Monitoring & Reporting	Required Planning Report performance	No more than two reports required by PUCT Rule, DOE project, NERC or State law filed late or with error.	100% of reports required by PUCT Rule, DOE project, NERC or State law completed on time without errors.
EM 1	Ogelman, Kenan	Bidding, Scheduling & Pricing	DAM quality of solution as measured with price corrections: percent of hourly prices requiring DAM price correction.	1-3 % of time	< 1 % of time
EM 2	Ogelman, Kenan	Bidding, Scheduling & Pricing	SCED solution is solved and posted: percent of 15-minute Settlement Interval prices where price corrections are performed.	0.5% -- 1%	< 0.5%
EM 3	Ogelman, Kenan	Settlement & Billing	Achieve timely settlements, per Protocol defined timelines.	99%	100%
EM 4	Ogelman, Kenan	Settlement & Billing	Perform accurate settlements as measured by the percent of Operating Day and operating month settlement that does not require a correction as a result of an error in the settlement and billing systems or processes.	98%	99.9%
EM 5	Ogelman, Kenan	Market Credit	Credit reports are correct and posted in a timely manner.	98%	100%

**Attachment A  
Proposed 2017 ERCOT Key Performance Indicators (KPIs)**

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch
EM 6	Gage, Theresa	Market Information	Wholesale extracts available per Protocol timelines.	98%	99%
EM 7	Dreyer, Jerry	IT Application Services	Congestion Revenue Rights (CRR) Availability	99%	99.5%
EM 8	Dreyer, Jerry	IT Application Services	Market Management System Aggregate Availability	99%	99.5%
EM_i 9	Ogelman, Kenan	Bidding, Scheduling & Pricing	Percent of days with successful DAM execution solution completed and posted successfully.	100%	n/a
EM_i 10	Ogelman, Kenan	Bidding, Scheduling & Pricing	DAM executions completed in acceptable timeframe: percent of days with posting solution before 1600.	98%	100%
EM_i 11	Ogelman, Kenan	Bidding, Scheduling & Pricing	Ancillary Services Requirements posted for the year.	Posted by December 20th of the previous year for the current year	N/A
EM_i 12	Ogelman, Kenan	Wholesale Metering, Data Collection & Data Aggregation	AMS interval data is loaded into ERCOT systems by final settlement from the MRE in accordance with Protocols for data loading.	99%	99.75%
EM_i 13	Ogelman, Kenan	Wholesale Metering, Data Collection & Data Aggregation	IDR meter data is loaded into ERCOT systems by true-up settlement from the MRE in accordance with Protocols for settlement.	99%	99.75%
EM_i 14	Ogelman, Kenan	Wholesale Metering, Data Collection & Data Aggregation	EPS meter data is accurate and complete as measured by the percent of data that doesn't change after an initial settlement.	99%	99.9%
EM_i 15	Ogelman, Kenan	CRR Management	CRR auctions are performed according to Nodal Protocols Requirements (7.5.1). CRR auctions results are validated and posted as required by the CRR Activity Calendar.	All Monthly Auctions and LTASs are posted on time per the CRR Activity Calendar	All Monthly Auctions are posted on time and all LTASs are posted one week earlier than required by the CRR Activity Calendar
EM_i 16	Gage, Theresa	Dispute Management	Process disputes within protocol timelines.	98%	100%
EM_i 17	Gage, Theresa	Client Services	Establish and Maintain Account Plans and execute per guidelines and schedule.	98%	100%
EM_i 18	Gage, Theresa	Account Management	Achieve "Very Satisfied" or "Satisfied" ratings on annual survey of Account Management services.	90% satisfied or highly satisfied	95% satisfied or highly satisfied
OARC 1	Ogelman, Kenan	Customer Switching / Registry	Conduct retail transaction processing per Protocol timelines.	98%	99%
OARC 2	Ogelman, Kenan	Customer Switching / Registry	End use customer switch notifications processed per PUCT rules.	99%	100%
OARC 3	Gage, Theresa	Market Information	Retail extracts available per Protocol timelines.	98%	99%
OARC 4	Dreyer, Jerry	IT Application Services	Retail Processing Availability - Bus. Hours	99.5% 99.9%	99.7% 99.95%
OARC 5	Dreyer, Jerry	IT Application Services	Market Information System (MIS) Availability	99%	99.5%
OARC_i 6	Dreyer, Jerry	IT Application Services	Retail Processing Availability - Non bus. Hours	99%	99.5%
OARC_i 7	Dreyer, Jerry	IT Application Services	Retail API Availability	99%	99.5%
OARC_i 8	Dreyer, Jerry	IT Application Services	MarkeTrak Availability	99%	99.5%
OARC_i 9	Ogelman, Kenan	Dispute Management	Manage retail transaction issues and disputes within defined timelines.	96%	98%
OSM 1	Petterson, Michael	Finance	Manage spending to be equal to or less than the board-approved expenditure budget for 2016.	Between 0 -- 5% favorable variance	n/a
OSM 2	Day, Betty	Security	Maintain ERCOT ISO's security posture against cyber security threats as defined in the Security Incident Response Plan.	Zero externally reportable cyber security incidents	N/A
OSM 3	Day, Betty	Security	Maintain ERCOT ISO's security posture against physical security threats as defined in the Security Incident Response Plan.	Zero externally reportable physical security incidents	N/A
OSM_i 4	Dreyer, Jerry	IT Application Services	Operate data centers providing availability consistent with data center designed objectives.	99.98%	100%
OSM_i 5	Magness, Bill	Internal Audit	Execute the Internal Audit Plan as approved by the Finance and Audit Committee, <del>and complete the plan</del> <b>having all audit projects in process</b> by end of year.	100% <b>in process</b> by year end	N/A
OSM_i 6	Gage, Theresa	Corporate Communications	ERCOT Energy Emergency Alert Communications -- Corporate Communications provides follow-up communications and media/public notifications per Crisis Communications Procedure.	100%	N/A