



Item 9: Q4 2017 Key Performance Indicator (KPI) Review

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Human Resources and Governance Committee
Meeting

ERCOT Public
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Q4 2017 Key Performance Indicator (KPI) Summary

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

	YTD - 2017			Q4 - 2017			Q3 - 2017			Q2 - 2017			Q1 - 2017		
	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below
Reliable Grid															
Grid Security Management / Real-Time System Control / Scheduling & Dispatch															
Outage Coordination / Planning															
Forecasting	50%		50%										50%		50%
Compliance Monitoring & Reporting															
IT Application Services	50%		50%	67%		33%	67%		33%	67%		33%	50%		50%
Efficient Electricity Markets															
Bidding, Scheduling and Pricing															
Settlement & Billing				50%		50%							50%		50%
Market Credit															
Market Information															
IT Application Services															
Open Access & Retail Choice															
Customer Switching / Registry															
Market Information															
IT Application Services	50%		50%										50%		50%
Other Support and Management Functions															
Finance															
Security															
Total number of KPIs tracked:	29			29			29			29			29		
% meeting Stretch:	55%			72%			76%			76%			59%		
% meeting Target:	38%			21%			24%			24%			34%		
% below Target:	7%			7%			0%			0%			7%		

Appendix



Q4 2017 KPI Detail – Reliable Grid

KPI ID	KPI Description	2017 Target Performance	2017 Stretch Performance	2017 YTD	Q4	Q3	Q2	Q1
Grid Security Management / Real-Time System Control / Scheduling & Dispatch								
RG 1	Control Performance Standard 1 (CPS1) frequency control performance (rolling 12 month CPS1 score)	> 140	> 150	All scores greater than 150	Q4 Rolling 12 month CPS1 score = 174.8; 174.7; 174.9	Q3 Rolling 12 month CPS1 score = 175.38; 175.08; 174.96	Q2 Rolling 12 month CPS1 score = 175.41; 175.27; 175.22	Q1 Rolling 12 month CPS1 score = 176.3; 176.1; 175.7
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	No exceedances
Outage Coordination / Planning								
RG 3	Outage Coordination performance: requests approved or denied within timeline and with mitigation plans developed if required	97%	99%	99.8%	99.91%	99.5%	99.99%	99.89%
Forecasting								
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%	4.07%	3.12%	2.77%	2.77%	4.07%
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%	All less than 10%	Q4 Monthly Avg DA MAPE = 4.9%; 4.3%; 6.3%	Q3 Monthly Avg DA MAPE = 4.3%; 4.5%; 4.8%	Q2 Monthly Avg DA MAPE = 6.9%; 5.9%; 5.5%	Q1 Monthly Avg DA MAPE = 6.5%; 6.9%; 6.0%
Compliance Monitoring & Reporting								
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	No significant violations found in a NERC Compliance Audit
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	No exceptions found in an SSAE16 audit

RG7 is intentionally left blank.

Q4 2017 KPI Detail – Reliable Grid

KPI ID	KPI Description	2017 Target Performance	2017 Stretch Performance	2017 YTD	Q4	Q3	Q2	Q1
IT Application Services								
RG 9	Energy Management System Tier 1 Aggregate Availability	All Tier 1 systems meet or exceed defined SLAs (99.90%)	N/A	100%	100%	100%	100%	100%
RG 10	Energy Management System Tier 2 Aggregate Availability	Achieve 99.9% availability for 10 of 11 Tier 2 systems	Achieve 99.9% availability for all Tier 2 systems	100%	100%	100%	100%	100%
RG 11	Security Constrained Economic Dispatch (SCED) Availability	99.95%	100%	99.99%	100%	100%	100%	99.99%
RG 12	Number of unplanned SCED outages greater than 30 consecutive minutes (per quarter)	Zero	N/A	Zero	Zero	Zero	Zero	Zero
RG 13	Outage Scheduler Availability	99%	99.5%	100%	100%	100%	100%	100%
RG 14	Network Model Management System (NMMS) Availability	99%	99.5%	100%	100%	100%	100%	100%

Q4 2017 KPI Detail – Efficient Electricity Markets

KPI ID	KPI Description	2017 Target Performance	2017 Stretch Performance	2017 YTD	Q4	Q3	Q2	Q1
Bidding, Scheduling and Pricing								
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%	0%	0%	0%	0%
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%	0.03%	0.08%	0.045%	0%	0%
Settlement & Billing								
EM 3	Achieve timely settlements per Protocol defined timelines	99%	100%	99.98%	100%	100%	100%	99.99%
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%	99.28%	97.12%	100%	100%	100%
Market Credit								
EM 5	Credit reports are correct and posted in a timely manner	98%	100%	99.91%	100%	100%	100%	99.64%
Market Information								
EM 6	Wholesale extracts available per Protocol timelines	98%	99%	99.93%	99.90%	99.89%	99.96%	99.95%
IT Application Services								
EM 7	Congestion Revenue Rights (CRR) Availability	99%	99.5%	100%	100%	100%	100%	100%
EM 8	Market Management System Aggregate Availability	99%	99.5%	100%	100%	100%	100%	100%

Q4 2017 KPI Detail – Open Access & Retail Choice

KPI ID	KPI Description	2017 Target Performance	2017 Stretch Performance	2017 YTD	Q4	Q3	Q2	Q1
Customer Switching / Registry								
OARC 1	Conduct retail transaction processing per Protocol timelines	98%	99%	99.96%	99.98%	99.91%	99.98%	99.97%
OARC 2	End use customer switch notifications processed per PUCT rules	99%	100%	100%	100%	100%	100%	100%
Market Information								
OARC 3	Retail extracts available per Protocol timelines	98%	99%	99.97%	100%	100%	99.89%	100%
IT Application Services								
OARC 4	Retail Processing Availability - Business Hours	99.90%	99.95%	99.88%	100%	100%	100%	99.52%
OARC 5	Market Information System (MIS) Availability	99%	99.5%	99.94%	99.93%	99.96%	99.90%	99.95%

Q4 2017 KPI Detail – Other Support & Management Functions

KPI ID	KPI Description	2017 Target Performance	2017 Stretch Performance	2017 YTD	Q4	Q3	Q2	Q1
Finance								
OSM 1	Manage spending to be equal to or less than the Board-approved expenditure budget for 2017.	Between 0 - 5% favorable variance	N/A	3.89%	-2.91%	2.39%	2.22%	12.45%
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 externally reportable cyber security incidents	Zero externally reportable cyber security incidents	Zero externally reportable cyber security incidents	Zero externally reportable cyber security incidents	Zero externally 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 externally reportable physical security incidents	Zero externally reportable cyber security incidents	Zero externally reportable physical security incidents	Zero externally reportable physical security incidents	Zero externally reportable physical security incidents