ERCOT

Date: December 1, 2015
To: Board of Directors
From: H.B. "Trip" Doggett, President and Chief Executive Officer
Subject: 2016 ERCOT Key Performance Indicators (KPIs)

<u>Issue for the ERCOT Board of Directors</u>

<u>ERCOT Board of Directors Meeting Date:</u> December 8, 2015
<u>Item No.:</u> 11.1

<u>Issue:</u> Whether the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) should approve the 2016 ERCOT KPIs as recommended by ERCOT staff.
<u>Background/History:</u> 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 2016 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 2016. The Human Resource and Governance (HR&G) Committee is expected to consider whether to recommend that the Board approve the 2016 KPIs as presented at its meeting on December 7, 2015. A copy of the proposed 2016 KPI Matrix is attached hereto as <u>Attachment A</u>.
<u>Key Factors Influencing Issue:</u> The 2016 KPIs correlate to ERCOT's strategic direction of the Board and provide performance measures to the Board and ERCOT leadership and staff.
<u>Conclusion/Recommendation:</u> The ERCOT leadership team recommends that the HR&G Committee recommend approval and that the ERCOT Board approve the 2016 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 2016 ERCOT Key Performance Indicators (KPIs) attached hereto as Attachment A; and

THEREFORE, BE IT RESOLVED, that the 2016 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 8, 2015 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, 2015.

_____
Vickie G. Leady
Assistant Corporate Secretary

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch	Comments
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 full compliance with NERC/FERC planning and operating standards, OPS, Protocols.~~	~~No more than 1 high severity and no more than 3 total exceptions from NERC Standards as found in a NERC Compliance Audit excluding current registration mitigation plan regarding TOP.~~	~~No exceptions from NERC Standards as found in a NERC Compliance Audit.~~	Replace - see additions below
RG 7	Day, Betty	~~Compliance Monitoring & Reporting~~	~~Assure property, personnel, and cyber assets are protected (cyber and physical) in accordance with NERC CIP Standards and SSAE16 Controls.~~	~~No more than 1 high severity and no more than 3 total alleged violations from NERC Standards as found in a NERC or TRE initiated CIP CMEP in 2015. SSAE16 - No more than 1 exception in logical or physical security controls and an unqualified opinion in logical or physical security controls.~~	~~No alleged violations from NERC Standards as found in a NERC or TRE initiated CIP CMEP in 2015.~~	Replace - see additions below
RG 8	Dreyer, Jerry	~~IT Application Services~~	~~Energy Management System Aggregate Availability~~	~~99%~~	~~99.5%~~	Replace - see additions below
RG 9	Dreyer, Jerry	IT Application Services	Security Constrained Economic Dispatch (SCED) Availability	99.9%	99.95%	

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch	Comments
RG 10	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 11	Dreyer, Jerry	~~IT Application Services~~	~~Load Frequency Control (LFC) Availability~~	~~99.9%~~	~~99.95%~~	Replace - see additions below
RG 12	Dreyer, Jerry	~~IT Application Services~~	~~Load Frequency Control (LFC): number of unplanned outages greater than 30 consecutive minutes (per quarter)~~	~~zero~~	~~n/a~~	Replace - see additions below
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	~~Outage Coordination / Planning~~	~~Network model update accuracy~~	~~No more than 3 emergency database loads due to staff error~~	~~No emergency database loads due to staff error~~	ERCOT's capabilities of incrementally updating the production CIM model has increased since the start of Nodal mitigating the risk associated with performing emergency database loads. As the last emergency database load was in 2012, ERCOT recommends deleting RG_i19.
RG_i 20	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.	

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch	Comments
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%	
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	Number of minimum Ancillary Services Requirements posted after the 20th of each month.	≤ 2	0	As a fraction response is not possible, revise target to less than or equal to 2 instead of less than 2.

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch	Comments
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 ~~Targeted~~ Account Plans and execute per guidelines and schedule.	98%	100%	"Targeted" was used when account plans where focused on client support of wholesale market transactions, prior to combining Wholesale and Retail Client Services. ERCOT recommends revising KPI description.
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	~~Determine REC Obligations & Verify Compliance~~	~~Fulfill the protocol obligations for RPS mandate calculations and reporting on time and accurately~~	~~99%~~	~~100%~~	OARC1 addresses overall Protocol compliance for Renewable Portfolio Standard program. As ERCOT there is an overall Protocol compliance measure, ERCOT suggests deletion of this KPI.
OARC 2	Ogelman, Kenan	Customer Switching / Registry	Conduct retail transaction processing per Protocol timelines	98%	99%	

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch	Comments
OARC 3	Ogelman, Kenan	Customer Switching / Registry	End use customer switch notifications processed per PUCT rules	99%	100%	
OARC 4	Gage, Theresa	Market Information	Retail extracts available per Protocol timelines	98%	99%	
OARC 5	Dreyer, Jerry	IT Application Services	Retail Processing Availability - Bus. Hours	99.5%	99.7%	
OARC 6	Dreyer, Jerry	IT Application Services	Market Information System (MIS) Availability	99%	99.5%	
OARC_i 7	Dreyer, Jerry	IT Application Services	Retail Processing Availability - Non Bus. Hours	99%	99.5%	
OARC_i 8	Dreyer, Jerry	IT Application Services	Retail API Availability	99%	99.5%	
OARC_i 9	Dreyer, Jerry	IT Application Services	MarkeTrak Availability	99%	99.5%	
OARC_i 10	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 2015.	Between 0 -- 5% favorable variance	n/a	
OSM 2	Day, Betty	~~Security~~	~~Maintain ERCOT ISO's security posture against cyber and physical security threats as defined in the Cyber Security Incident Response Plan.~~	~~No more than one Stage 2 or Stage 3 cyber or physical security incidents.~~	~~Zero Stage 2 or Stage 3 cyber or physical security incidents.~~	Replace - see additions below
OSM_i 3	Dreyer, Jerry	IT Application Services	Operate data centers providing availability consistent with data center designed objectives.	99.98%	100%	
OSM_i 4	Magness, Bill	Internal Audit	Execute the Internal Audit Plan as approved by the Finance and Audit Committee, and complete the plan by end of year.	100% by year end	106% by year end	
OSM_i 5	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	
New KPI	Day, Betty	Compliance Monitoring & Reporting	Achieve compliance with NERC/FERC Standards	No significant violations found in a NERC Compliance Audit	N/A	New addition; replace previous aggregate compliance measure RG6.
New KPI	Day, Betty	Compliance Monitoring & Reporting	Achieve compliance with ERCOT Protocols	No significant violations of ERCOT Protocols	N/A	New addition; replace previous aggregate compliance measure RG6.

KPI Identifier	Executive	Capability	KPI Description	Target	Stretch	Comments
New KPI	Day, Betty	Compliance Monitoring & Reporting	Achieve compliance with SSAE16 controls	No exceptions found in an SSAE16 audit	N/A	New addition; replace previous aggregate compliance measure RG7.
New KPI	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	New addition; replace previous security measure OSM2.
New KPI	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	New addition; replace previous security measure OSM2.
New KPI	Dreyer, Jerry	IT Application Services	Energy Management System Tier 1 Aggregate Availability	All Tier 1 systems meet or exceed defined SLAs *	N/A	New addition; replaces previous EMS aggregate measure RG8.
New KPI	Dreyer, Jerry	IT Application Services	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	New addition; replaces previous EMS aggregate measure RG8.

* EMS Tier 1 includes:

-- State Estimator – 99.5% system availability (not including planned maintenance) and no outages greater than thirty consecutive minutes;

-- Real-time Contingency Analysis (RTCM)/Transmission Constraint Management (TCM) – 99.5% system availability (not including planned maintenance) and no outages greater than thirty consecutive minutes;

-- Load Frequency Control (LFC) – 99.9% system availability (not including planned maintenance) and no outages greater than ten consecutive minutes;
-- Resource Limit Calculator (RLC) – 99.9% system availability (not including planned maintenance) and no outages greater than ten consecutive minutes; and
-- Grid Alarm Processor - 99.9% system availability (not including planned maintenance) and no outages greater than ten consecutive minutes.

** EMS Tier 2 includes:
-- Forced Outage Protection
-- Grid Network Security Analysis
-- Grid Dynamic Ratings
-- Grid Topology Consistency Analyzer
-- Ancillary Capacity Monitor
-- Wind Forecast
-- Savecase Archiving
-- State Estimator Statistics
-- Real-time Network Analysis
-- Short-term Load Forecast
-- Mid-term Load Forecast