# Item 10: Strategic Goal Update and Review of Q4 2020 Key Performance Indicators (KPIs)

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Urgent Human Resources and Governance Committee Meeting

ERCOT Public February 8, 2021



# 2020 ERCOT Enterprise Objectives & Key Results (OKRs)

Establish rules for new resources and market modernization.

Improve data and information exchange services to ERCOT stakeholders.

**Complete defined stages of core system and service improvements.** 



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**Objective 1:** Establish rules for new resources and market modernization.

Key Results (as measured by)								
a.	<b>Real-Time Co-optimization (RTC)</b> Protocols are approved by the December 2020 Board.	Completed 12/08/20	Ögelman					
b.	<b>Energy Storage Resource (ESR)</b> Protocols are approved by the December 2020 Board to:							
i.	Sustain the combination modeling of Energy Storage Resources as Generation Resources and Controllable Load Resources.	Completed 12/08/20	Rickerson					
ii.	Model Energy Storage Resources as single device to be delivered with EMS-upgrade and RTC.	Completed 12/08/20	Rickerson					
C.	<b>Distribution Generation Resource (DGR)</b> Protocols are approved by the December 2020 Board.	Completed 08/11/20	Rickerson					

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**Objective 2:** Improve data and information exchange services to ERCOT stakeholders.

Key Results (as measured by)								
a.	Deliver the <b>RIOO</b> function that enables Market Participants to electronically submit, review and edit Resource Asset registration data.	Completed 11/13/20	Rickerson					
b.	Transition <b>MIS</b> to a stable, supported platform while enhancing user experience & defining scope changes for <b>ERCOT.com</b> ( <b>ECMS Phase 2</b> ).	Completed 11/11/20	Gage					
C.	Deliver <b>effective notification of grid status</b> to all constituents (public, MP, PUC, etc.) via supported technical communications.							
i.	Deliver tactical scope that includes the ability to do emergency testing in production prior to summer 2020.	Completed 05/15/20	Parakkuth					
ii.	Develop strategy for long-term enhancements to architecture as required to ensure systems are hardened.	Completed 09/30/20	Parakkuth					



#### **Objective 3:** Complete defined stages of core system & service improvements.

Key Re	Key Results (as measured by)								
a.	Complete <b>EMS Early Risk Mitigation (ERM)</b> tasks in support of EMS upgrade.	Completed 11/20/20	Rickerson						
b.	Solicit stakeholder feedback on revised <b>Treasury</b> <b>Management</b> processes and develop appropriate market rule changes.	Completed 11/20/20	Taylor						
C.	Implement Fast Frequency Response changes (NPRR863).	Completed 03/01/20	Rickerson						
d.	Upgrade retail market software to maintain support.								
i.	Complete Siebel upgrade project planning.	Completed 03/27/20	Ögelman						
ii.	Deliver upgraded software via EDI Map & Translator Replacement and NAESB Application Tech Refresh projects.	Completed 11/01/20	Ögelman						
e.	Establish methods to meet the compliance deadline for <b>new</b> <b>CIP Standards</b> governing remote access, configuration change and supply chain risk management.	Completed 07/01/20	Day						



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Complete market-facing initiatives advancing reliable operations, market systems and data transparency

Implement improvements in technological capabilities and financial processes



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#### **Objective 1:** Deliver defined stages of the Passport Program

Key Results (as measured by)							
a.	Establish Passport Program framework and complete <b>Business</b> <b>Requirements</b>	Dec-21	Ögelman				
b.	Design and deliver key components for the 2024 <b>Energy</b> <b>Management System</b> (EMS) upgrade	Dec-21	Rickerson				
C.	Improve integration of <b>Distribution Generation Resource</b> (DGR) and <b>Energy Storage Resource</b> (ESR) into ERCOT systems	Dec-21	Rickerson				
d.	Implement Fast Frequency Response (FFR) Advanced changes	Mar-22	Ögelman				

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**Objective 2:** Complete market-facing initiatives advancing reliable operations, market systems and data transparency

Key Results (as measured by)								
a.	Complete cycle of improvements to <b>Retail market software</b> (Siebel upgrade)	May-21	Ögelman					
b.	Complete ERCOT's requirements to facilitate integration of Lubbock load into the ERCOT system	June-21	Rickerson					
C.	Broaden <b>forecasting</b> capabilities to meet the requirements of a changing grid	June-21	Rickerson					
d.	Transition <b>ERCOT.com</b> to a stable, supported platform with enhanced user experience ( <b>ECMS Ph2</b> )	Nov-21	Gage					
e.	Complete <b>RIOO</b> system components to retire the RARF	Dec-21	Rickerson					

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**Objective 3:** Implement improvements in technological capabilities and financial processes

Key Results (as measured by)							
a.	Establish <b>DC5</b> Program framework to replace ERCOT's aging and end-of-life IT infrastructure	Dec-21	Parakkuth				
b.	Complete planning to automate <b>treasury</b> processes to reduce financial and operational risk	Dec-21	Taylor				

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### 2020 Key Performance Indicator (KPI) Summary

	YTD - 202 Stretch Target		Q4 - 202 Stretch Target		Q3 - 20 <mark>Stretch</mark> Targ		Q2 - 2 <mark>Stretch</mark> Tar		Q1 - 20 <mark>Stretch</mark> Targo	
Reliable Grid										
Grid Security Management										
Outage Coordination / Planning										
Forecasting										
Compliance Monitoring & Reporting	070/	000/	070/	000/	070/	000/	070/	000/	070/	000(
IT Application Services	67%	33%	67%	33%	67%	33%	67%	33%	67%	33%
Efficient Electricity Markets										
Bidding, Scheduling and Pricing	50% 5	0%			50%	50%	50%	50%		
Settlement & Billing										
Market Credit										
Market Information										
IT Application Services										
Open Access & Retail Choice										
Customer Switching / Registry										
Market Information										
IT Application Services										
Other Support and Management										
Functions										
Finance										
Security										
Total number of KPIs tracked:	29		29		29		29	)	29	
% meeting Stretch:	72%		79%		76%	D	739	%	79%	)
% meeting Target:	21%		17%		17%		179	%	21%	
% below Target:	7%		4%		7%		109	%	0%	

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## **Appendix:**



## Q1- Q4 2020 KPI Detail – Reliable Grid

KPI ID	KPI Description	2020 Target Performance	2020 Stretch Performance	2020 YTD	Q4	Q3	Q2	Q1
Grid Se	curity Management							
RG 1	Control Performance Standard 1 (CPS1) frequency control performance (rolling 12 month CPS1 score)	> 140	> 150	All scores greater than 150	Oct-170.56%, Nov-173.19%, Dec-170.47%	Jul-168.30%, Aug-170.50%, Sep-173.60%	April-168.90%, May-170.80%, June-170.70%	Jan-174.86%, Feb-174.80%, March-174.51%
RG 2	Interconnection Reliability Operating Limit (IROL) exceedance limitations	None longer than 20 minutes	None longer than 10 minutes	No IROL exceedances	No IROL exceedances	No IROL exceedances	No IROL exceedances	No IROL exceedances
Outage	Coordination / Planning							
RG 3	Outage Coordination performance: requests approved or denied within timeline and with mitigation plans developed if required	97%	99%	99.73%	99.86%	99.92%	99.80%	99.34%
Forecas	ting							
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%	2.63%	2.61%	2.26%	3.22%	2.42%
RG 5	Wind forecast performance - MAPE based on installed wind capacity: monthly average day ahead wind forecasts used for DRUC MAPE	All less than 10%	All less than 8%	All less than 8%	Oct-4.9%, Nov-3.3%, Dec-3.8%	Jul-4.60%, Aug-4.40%, Sep-3.40%	April-4.50%, May-4.50%, June-4.80%	Jan-4.00%, Feb-4.10%, March-5.10%
RG 6	Solar forecast performance - MAPE based on installed solar capacity: monthly average day ahead solar forecasts used for DRUC MAPE.	All less than 15%	All less than 10%	All less than 10%	Oct-5.84%, Nov-4.48%, Dec-5.29%	Jul-5.40%, Aug-5.24%, Sep-6.76%	April-5.01%, May-6.79%, June-5.01%	Jan-5.82%, Feb-5.77%, March-7.37%
Complia	ance Monitoring & Reporting	· · · · · · · · · · · · · · · · · · ·						
RG 8	Achieve compliance with SOC controls	No exceptions found in a SOC audit	N/A	No exceptions found in a SOC audit	No exceptions found in a SOC audit	No exceptions found in a SOC audit	No exceptions found in a SOC audit	No exceptions found in a SOC audit



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RG7 is intentionally left blank.

### Q1- Q4 2020 KPI Detail – Reliable Grid

KPI ID	KPI Description	2020 Target Performance	2020 Stretch Performance	2020 YTD	Q4	Q3	Q2	Q1
IT Appli	cation 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) Availablity	99.95%	100%	100%	100%	100%	100%	100%
RG 12	Security Constrained Economic Dispatch (SCED): number of unplanned 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%

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#### Q1- Q4 2020 KPI Detail – Efficient Electricity Markets

KPI ID	KPI Description	2020 Target Performance	2020 Stretch Performance	2020 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	4.62%	0.00%	7.87%	10.45%	0.25%
EM 2	SCED solution is solved and posted: percent of 15-minute Settlement Interval prices where price corrections are performed. This measure includes corrections from routine work (e.g., database loads and site failover)	0.25% - 1%	<0.25%	0.03%	0.00%	0.09%	0.02%	0.00%
Settlem	ent & Billing							
EM 3	Achieve timely settlements per Protocol defined timelines	99%	100%	100%	100%	100%	100%	100%
EM 4	Perform accurate settlements as measured by the percent of statements/invoices that do not require a correction as a result of an error in the settlement and billing systems or processes	98%	99.9%	99.96%	100%	99.94%	99.90%	100%
Market	Credit		1					
EM 5	Credit reports are correct and posted in a timely manner	98%	100%	98.81%	100%	99.94%	95.30%	100%
Market	Information							
EM 6	Wholesale extracts available per Protocol timelines	98%	99%	99.96%	99.96%	99.96%	99.96%	99.98%
IT Appli	ication 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%

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### Q1- Q4 2020 KPI Detail – Open Access & Retail Choice

KPI ID	KPI Description	2020 Target Performance	2020 Stretch Performance	2020 YTD	Q4	Q3	Q2	Q1		
Customer	Customer Switching / Registry									
OARC 1	Conduct retail transaction processing per Protocol timelines	98%	99%	99.88%	99.94%	99.64%	99.99%	99.94%		
OARC 2	End use customer switch notifications processed per PUCT rules	99%	100%	100%	100%	100%	100%	100%		
Market In	Market Information									
OARC 3	Retail extracts available per Protocol timelines	98%	99%	100%	100%	100%	100%	100%		
IT Applica	ation Services									
OARC 4	Retail Processing Availability - Business Hours	99.90%	99.95%	100%	100%	100%	100%	100%		
OARC 5	Market Information System (MIS) Availability	99%	99.5%	99.90%	99.77%	99.99%	99.88%	99.97%		

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#### Q1- Q4 2020 KPI Detail – Other Support & Management Functions

KPI ID	KPI Description	2020 Target Performance	2020 Stretch Performance	2020 YTD	Q4	Q3	Q2	Q1	
Finance	Finance								
OSM 1	Manage spending to be equal to or less than the board- approved expenditure budget	Between 0 - 5% favorable variance	N/A	-1.00%	-3.80%	6.30%	-9.10%	2.50%	
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		reportable	Zero externally reportable cyber security incidents	reportable	
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					

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