



## **Item 15: Strategic Goal Update and Review of Q4 2021 Key Performance Indicators (KPIs)**

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Board of Directors Meeting

ERCOT Public

March 7-8, 2022

# ERCOT Objectives & Key Results (OKR) Process

- Established internally annually in Q4 for the next year to:
  - Align work to our strategy
  - Prioritize work based on strategic alignment and enterprise risk mitigation
  - Promote accountability and set clear expectations
- Review process:
  - February and August report to the ERCOT Board
  - Regular internal check points and bi-monthly Executive reporting
  - Progress is reported and obstacles are managed
  - Enterprise priorities are reviewed and revised as necessary

# 2021/2022 ERCOT Enterprise OKRs

1

**Improve grid reliability**

2

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

3

**Implement improvements in technological capabilities and financial processes**

# 2021 ERCOT Enterprise OKRs

## Objective 1: Improve grid reliability

Key Results (as measured by)		
✓	Develop a plan to implement all remaining items in the <b>Roadmap to Improving Grid Reliability</b>	Completed Sept-21
✓	Design and deliver key components for the 2024 <b>Energy Management System (EMS)</b> upgrade	Completed Dec-21* <small>*Key Milestones for 2021 were completed</small>
●	Improve integration of <b>Distribution Generation Resource (DGR)</b> and <b>Energy Storage Resource (ESR)</b> into ERCOT systems	Mar-22* <small>*Current status will be discussed during 2022 OKR review</small>
●	Implement <b>Fast Frequency Response (FFR) Advanced</b> changes	Mar-22* <small>*Current status will be discussed during 2022 OKR review</small>



# 2021 ERCOT Enterprise OKRs

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

Key Results (as measured by)		
✓	Complete cycle of improvements to <b>Retail market software</b> (Siebel upgrade)	Completed May-21
✓	Complete ERCOT's requirements to facilitate integration of <b>Lubbock load</b> into the ERCOT system	Completed June-21
✓	Broaden <b>forecasting</b> capabilities to meet the requirements of a changing grid	Completed June-21
✓	Transition <b>ERCOT.com</b> to a stable, supported platform with enhanced user experience (ECMS Ph2)	Completed Nov-21*  *This Key Result is complete. The ECMS Ph2 project is still in flight to deliver additional scope.
●	Complete <b>RIOO</b> system components to retire the RARF	May-22*  *Current status will be discussed during 2022 OKR review




# 2021 ERCOT Enterprise OKRs

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

Key Results (as measured by)		
✓	Establish <b>DC5</b> Program framework to replace ERCOT's aging and end-of-life IT infrastructure	Completed Dec-21*  *Key Milestones for 2021 were completed
●	Complete project charter to automate <b>treasury</b> processes to reduce financial and operational risk	Mar-22*  *Current status will be discussed during 2022 OKR review
●	Complete HB4492 Subchapter N project implementation required for <b>securitization</b> legislation	Mar-22*  *Current status will be discussed during 2022 OKR review

# 2022 ERCOT Enterprise OKRs

## Objective 1: Improve grid reliability

Key Results (as measured by)		
	Develop a program to implement the PUCT Rule for <b>weatherization</b> .	Nov-22, pending PUCT Ph. 2 rulemaking
	Implement key milestones for improving <b>integration of new resources types</b> .	Dec-22
	Design and deliver key components for the 2024 <b>Energy Management System (EMS)</b> upgrade (PR320-01).	Dec-22

# 2022 ERCOT Enterprise OKRs

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

Key Results (as measured by)		
●	Complete all the <b>RIOO</b> system components to allow retirement of the RARF spreadsheets (PR106-01).	Aug-22
●	Implement key milestones for <b>PUCT directed Market Redesign</b> by delivering instructed market design changes.	Dec-22
●	Implement NPRR1093 <b>Load Resource Participation in Non-Spinning Reserve</b> (PR384-01) by Summer 2022.	May-22
●	Establish <b>Firm Fuel Service</b> .	Dec-22
●	Implement <b>Fast Frequency Response (FFR) Advanced</b> changes (PR325-01).	Oct-22
●	Implement key milestones for <b>Creation of ERCOT Contingency Reserve Service (ECRS)</b> (PR386-01) changes which are targeting implementation by Summer 2023 (before EMS freeze).	Dec-22





# 2022 ERCOT Enterprise OKRs

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

Key Results (as measured by)		
●	Procure and install key components of the aging data center infrastructure for the <b>DC5 Infrastructure refresh</b> (PR342-00).	Dec-22
●	Establish project to automate <b>treasury</b> processes to reduce financial and operational risks and gate to planning phase by the end of Q3-2022.	Sep-22
●	Complete HB4492 Subchapter N Phase 1 project (PR379-01) to enable the design and automation of new treasury, credit and daily invoicing functions to recover the \$2.1B <b>securitization</b> funds over the next 30 years.	Mar-22
●	Secure <b>securitization</b> financing for HB4492 Subchapter N: \$2.1 Billion in bonds in Q2-2022 and begin Market Participant invoicing for uplift charges in Q3-2022.	Sept-22



# Q1-Q4 2021 Key Performance Indicator (KPI) Summary

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

	YTD - 2021			Q4 - 2021			Q3 - 2021			Q2 - 2021			Q1 - 2021		
	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below	Stretch	Target	Below
<b>Reliable Grid</b>															
Grid Security Management															
Outage Coordination / Planning															
Forecasting	67%		33%							67%		33%	67%		33%
Compliance Monitoring & Reporting															
IT Application Services	50%		50%	67%		33%	50%		50%	67%		33%	50%		50%
<b>Efficient Electricity Markets</b>															
Bidding, Scheduling and Pricing				50%		50%							50%		50%
Settlement & Billing													50%		50%
Market Credit															
Market Information															
IT Application Services															
<b>Open Access &amp; Retail Choice</b>															
Customer Switching / Registry															
Market Information															
IT Application Services															
<b>Other Support and Management Functions</b>															
Finance															
Security															
<b>Total number of KPIs tracked:</b>	29			29			29			29			29		
<b>% meeting Stretch:</b>	65%			76%			76%			76%			66%		
<b>% meeting Target:</b>	28%			14%			21%			21%			27%		
<b>% below Target:</b>	7%			10%			3%			3%			7%		



# Appendix:

# Q1- Q4 2021 KPI Detail – Reliable Grid

KPI ID	KPI Description	2021 Target Performance	2021 Stretch Performance	2021 YTD	Q4	Q3	Q2	Q1
<b>Grid Security Management</b>								
RG 1	Control Performance Standard 1 (CPS1) frequency control performance (rolling 12 month CPS1 score)	> 140	> 150	All scores greater than 150	Oct-169.50%, Nov-169.40%, Dec-169.40%	Jul-169.16%, Aug-169.47%, Sep-169.33%	April-169.00%, May-168.80%, June-169.00%	Jan-170.94%, Feb-169.62%, March-169.39%
RG 2	Interconnection Reliability Operating Limit (IROL) exceedance limitations	None longer than 20 minutes	None longer than 10 minutes	None longer than 10 minutes	None longer than 10 minutes	None longer than 10 minutes	None longer than 10 minutes	None longer than 10 minutes
<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%	99.60%	99.69%	99.76%	99.81%	99.16%
<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%	2.92%	2.19%	2.24%	2.52%	4.74%
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 10%	Oct-2.8%, Nov-3.1%, Dec-3.9%	Jul-3.40%, Aug-2.90%, Sep-3.20%	April-7.23%, May-8.33%, June-4.78%	Jan-4.40%, Feb-3.70%, March-4.01%
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-4.23%, Nov-4.57%, Dec-4.81%	Jul-5.08%, Aug-5.62%, Sep-4.19%	April-7.19%, May-6.37%, June-5.68%	Jan-5.82%, Feb-8.33%, March-8.21%
<b>Compliance Monitoring &amp; Reporting</b>								
RG 8	Achieve compliance with SOC controls	No exceptions found in a SOC audit	N/A	An exception was found during the first round of audit testing.	An exception was found during the first round of audit testing.	An exception was found during the first round of audit testing.	An exception was found during the first round of audit testing.	Testing has not yet started for the SOC audit

RG7 is intentionally left blank.



# Q1- Q4 2021 KPI Detail – Reliable Grid

KPI ID	KPI Description	2021 Target Performance	2021 Stretch Performance	2021 YTD	Q4	Q3	Q2	Q1
<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	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%	99.99%	100%	99.99%
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%

# Q1- Q4 2021 KPI Detail – Efficient Electricity Markets

KPI ID	KPI Description	2021 Target Performance	2021 Stretch Performance	2021 YTD	Q4	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	2.47%	8.40%	1.09%	0.00%	0.00%
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%	0.31%	0.02%	0.04%	0.03%	1.23%
<b>Settlement &amp; Billing</b>								
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%	100%	100%	99.83%
<b>Market Credit</b>								
EM 5	Credit reports are correct and posted in a timely manner	98%	100%	100%	100%	100%	100%	100%
<b>Market Information</b>								
EM 6	Wholesale extracts available per Protocol timelines	98%	99%	99.97%	99.99%	99.97%	99.97%	99.95%
<b>IT Application Services</b>								
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%

# Q1- Q4 2021 KPI Detail – Open Access & Retail Choice

KPI ID	KPI Description	2021 Target Performance	2021 Stretch Performance	2021 YTD	Q4	Q3	Q2	Q1
<b>Customer Switching / Registry</b>								
OARC 1	Conduct retail transaction processing per Protocol timelines	98%	99%	99.91%	99.99%	99.95%	99.73%	99.96%
OARC 2	End use customer switch notifications processed per PUCT rules	99%	100%	100%	100%	100%	100%	100%
<b>Market Information</b>								
OARC 3	Retail extracts available per Protocol timelines	98%	99%	100%	100%	100%	100%	100%
<b>IT Application Services</b>								
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%	99.87%	99.97%	99.88%	99.84%	99.79%

# Q1- Q4 2021 KPI Detail – Other Support & Management Functions

KPI ID	KPI Description	2021 Target Performance	2021 Stretch Performance	2021 YTD	Q4	Q3	Q2	Q1
<b>Finance</b>								
OSM 1	Manage spending to be equal to or less than the board-approved expenditure budget	Between 0 - 5% favorable variance	N/A	-6.5%	-21.1%	-3.5%	-3.5%	2.90%
<b>Security</b>								
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 physical security incidents	Zero externally reportable physical security incidents	Zero externally reportable physical security incidents	Zero externally reportable physical security incidents

\* Measure reflects number of successful attempts that would be reported externally. KPI was revised for 2022 to align with new CIP-008 reporting requirements.