



Item 4: 2018 Strategic Goal Update

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Human Resources and Governance Committee
Meeting

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Anticipate and adapt to changing resource mix

Initiative	Status
<p>Forecasting: Load (short-term and mid-term), Solar and Wind</p>	<p>Complete. Extreme weather impact on wind generation forecast is fully integrated with EMS.</p>
<ul style="list-style-type: none"> Update Reliability Coordinator agreements to clarify Switchable Generation Resource (SWGR) procedures during emergency operations. Draft Revision Request to improve awareness of SWGR statuses. 	<ul style="list-style-type: none"> Discussing with neighboring ISOs improvements in coordinated operation of Switchable Generation Resources and revisions to coordination agreements to further clarify SWGR operations. Working with Mexico grid operator (CENACE) and its regulatory entities to consider compatibility of SWGRs with Mexican market rules. Completing Impact Analysis for draft NPRR to create a SWGR status code for indicating operation in a neighboring region. Target NPRR submission Q4-18.
<p>Continued integration of intermittent resources through Intra-hour Wind Forecasting</p>	<ul style="list-style-type: none"> Complete. Intra-Hour wind forecast is integrated with EMS. SCR795, Addition of Intra-Hour Wind Forecast to GTBD Calculation, implementation in progress to incorporate the intra-hour wind forecast into Generation to be Dispatched (GTBD) calculation used to dispatch SCED basepoints.
<p>Draft Binding Document changes to better define technical requirements for limited-participation resources (e.g. Private Use Networks that do not offer into SCED), clarify existing Resource definitions, and provide a framework in Binding Documents that allows incorporation of new types generation.</p>	<ul style="list-style-type: none"> Resource Definition Taskforce (RTF) developed framework for addressing Resource Definitions. NPRR889, RTF-1 Replace Non-Modeled Generator with Settlement Only Generator, to be considered at the October TAC. Additional NPRRs to execute RTF framework plan will be submitted in 2019.
<p>Improve visibility and participation of distribution level resources:</p> <ul style="list-style-type: none"> Develop white paper to outline options for distributed energy resource (DER) participation in markets, and supported Distributed Renewable Energy & Ancillaries Markets (DREAM) Task Force. 	<ul style="list-style-type: none"> Developing NPRR to extend nodal price signals to registered (>1MW) DERs. Target completion moved from Q3-18 to Q4-18.

Provide thought leadership in support of continued improvements to operational reliability and markets

Initiative	Status
Facilitate transmission planning improvements; formalize load-scaling methodology	<ul style="list-style-type: none"> • NPRR837, Regional Planning Group (RPG) Process Reform, and PGRR059, Regional Planning Group (RPG) Process Reform approved by June 2018 Board. • ERCOT continues to work with stakeholders to define appropriate criteria for use of load sensitivities to assess areas with accelerated demand growth.
Consider redesign of Ancillary Services to ensure ERCOT continues to maintain grid reliability as the ERCOT System and Resource mix continue to evolve	<ul style="list-style-type: none"> • Complete. NPRR815, Revise the Limitation of Load Resources Providing Responsive Reserve (RRS) Service was implemented Q2-18. Responsive Reserve Quantities were revised and posted for remainder of 2018. • NPRR863, Creation of Primary Frequency Response Service Product and Revisions to Responsive Reserve was endorsed at the August 2018 ROS and is currently tabled at WMS for review. • ERCOT conducted two inertia workshops (Q1-18 and Q2-18). ERCOT continues to explore action items identified at the workshops.
Conduct studies, as appropriate, to assess environmental regulatory impacts and communicate activities with Stakeholders	<ul style="list-style-type: none"> • Recent changes in regulatory direction and the recent retirement of coal capacity in ERCOT have reduced the potential impact of regulatory changes. • ERCOT staff continue to review regulatory proposals to determine potential impacts to grid reliability.
Development of rules to address risk of subsynchronous resonance (SSR) in the ERCOT region	Complete. NPRR562, Subsynchronous Resonance, implemented Q2-18.
Real-Time Co-optimization issues being raised to the PUCT for discussion	<ul style="list-style-type: none"> • Workshop held on Marginal Losses and Real-time Co-optimization Q2-18. • Continue to support ongoing discussion at PUCT Open meetings.



Provide thought leadership in support of continued improvements to operational reliability and markets (continued)

Initiative	Status
<p>Explore improvements to scarcity pricing during Energy Emergency Alert, Emergency Response Service (ERS), Load Resource deployment:</p> <ul style="list-style-type: none"> Evaluate changes to Operating Reserve Demand Curve Support stakeholder discussions to further develop concept of enabling additional Resources to contribute to Real-Time price formation and to expand access to the Real-Time Energy Market 	<ul style="list-style-type: none"> OBDRR002, ORDC OBD Revisions for PUCT Project 47199, approved by April 2018 Board. Support stakeholder discussions as needed.
Phasor Measurement Units (PMU)	Project in Execution. Go-live for PMU tool completed Q3-18. PMU data is being directly received from Transmission Operators. Dynamic DTS (Dispatch Training Simulator) go-live target changed from Q3-18 to Q4-18.
Establish market continuity principles	NPRR850, Market Suspension and Restart, remains tabled at PRS for review.
Map Registered Distributed Generation to the transmission grid	<ul style="list-style-type: none"> Revision requests to implement a long-term process for mapping approved by August 2018 Board: <ul style="list-style-type: none"> NPRR866, Mapping Registered Distributed Generation and Load Resources to Transmission Loads in the Network Operations Model PGRR061, Related to NPRR866, Mapping Registered Distributed Generation and Load Resources to Transmission Loads in the Network Operations Model RRGRR017, Related to NPRR866, Mapping Registered Distributed Generation and Load Resources to Transmission Loads in the Network Operations Model. Implementation project scheduled to start Q4-18.

Deliver channels and tools to stakeholders for enhanced communication and increased transparency and access

Initiative	Status
<p>Implement Enterprise Content Alignment Program (ECAP) strategy and roadmap. ECAP projects include:</p> <ul style="list-style-type: none"> Implement Taxonomy into existing systems Enterprise Content Management (ECM) Proof of Concept - Define, validate and recommend enterprise content management solution. 	<ul style="list-style-type: none"> Taxonomy management software training complete. Initial pilot for taxonomy application to Market Notices will be internally facing only. Target go-live moved from Q3-18 to Q1-19. Phase 1 implementation planning complete Q1-18. Target go-live Q4-18.
<p>Improve efficiency of managing Public Data requests.</p>	<p>This effort will be aligned with the priorities of the digital engagement strategy.</p>
<p>Develop data services to support Market Participant needs by implementing RIOO functionality:</p> <ul style="list-style-type: none"> Automate some manual Generation Interconnection or Change Request (GINR) processes to reduce errors and increase efficiency. Replace existing Resource Asset Registration Form (RARF) 	<ul style="list-style-type: none"> Go-live complete Q3-18. Additional functionality planned for releases through Q1-19. PGRR0062, Updates to Generation Interconnection or Change Request (GINR) Process, approved by August 2018 Board. Stage 1 target go-live being re-planned to align with digital engagement strategy and dependent initiatives.
<p>Full Interconnection Study process changes</p>	<ul style="list-style-type: none"> Completion of exit alternative studies for all existing Generic Transmission Constraints (GTCs), except three in South Texas, targeted for Q4-18. Exit alternatives for three South Texas GTCs delayed due to possible impacts identified in the Regional Planning Group progress.

Continually enhance our cyber and physical security posture

Initiative	Status
Participate in NERC Grid Ex V 2019 planning and exercise	NERC Grid Exercise V planning is underway.
Continue progress on Critical Infrastructure Security Roadmap	<ul style="list-style-type: none">• 2018 Roadmap implementation is 70% complete.• Formation of 2019 Roadmap in progress.
National Institute of Standards and Technology (NIST) Cybersecurity Framework Dashboard	In progress. Target completion Q1-19.
Continue collaborative efforts on security issues	<ul style="list-style-type: none">• Ongoing work with various Industry/Government groups on security issues.• Increased participation within Critical Infrastructure Protection Working Group (CIPWG). Continue to grow the audience.
Coordinate Grid Resilience Working Group	Tracking EPRI study to evaluate impacts of electromagnetic pulse on power system. First phase released Q1-17; final targeted for Q2-19.

Develop ERCOT resources - people and technology

Initiative	Status
Implement Technology Refresh (DC4 Project)	<ul style="list-style-type: none"> • Seven active DC4 projects. Five projects complete. • Vendor Hardware Refresh project will be initiated Q4-18. • Committed spend is near 94% of forecasted budget. • Program is approximately 80% through estimated timeline. • DC4 procurement in progress with approximately 92% of purchases complete; target completion moved from Q3-18 to Q1-19 due to extended length of DC4 Program. • Legacy storage decommissioned Q2-18. • Updated Remote Access system migrations completed Q2-18. • All legacy application migrations completed Q2-18.
Implement major upgrades: <ul style="list-style-type: none"> • Congestion Revenue Rights (CRR) Framework • Credit Monitoring and Management System (CMM) • Retail Portfolio Refresh 	<ul style="list-style-type: none"> • CRR: Project in Execution; target go-live delayed from Q1-18 to Q4-18. • CMM: Phase 1B in Execution; target go-live delayed from Q4-18 to Q2-19. • Retail Program established and reviewed with Stakeholders to align and coordinate technical health updates to retail systems. <ul style="list-style-type: none"> ○ FlighTrak project in execution phase. Target go-live Q2-19. ○ EDI Replacement project in planning phase.
Optimize ERCOT release management and change management procedures and processes	Project in Execution; focus shifted from development to business process testing and cutover planning. Target go-live Q4-18 with a feasibility decision on 10/5/18.
Improve internal access management	Project in Execution; target go-live delayed from Q4-18 to Q2-19 due to integration, data quality, and design issues. Project has migrated to the iTest environment where testing and defect resolution is on-going.



Develop ERCOT resources - people and technology (continued)

Initiative	Status
Continue development of career paths: <ul style="list-style-type: none">Enhance job description repositoryBenchmark critical positions	<ul style="list-style-type: none">Job description project is underway.Position benchmarking for Legal and Cyber completed. Evaluation of critical positions in Operations and IT planned for 2018.
Measure Employee Satisfaction and Engagement	<ul style="list-style-type: none">Best Places to Work Survey postponed to 2019.Quarterly internal pulse surveys are ongoing.
Continue focus on Management Development: <ul style="list-style-type: none">Coaching classes and clinicsInterview training for all managers	<ul style="list-style-type: none">Coaching activities are on track.Interview training pilot held Q1-2018. Roll-out is underway.