Items 4, 4.1 and 4.2:
ERCOT Strategic Goals
Update on 2017 Strategic Goals
Review of 2018 Strategic Goals

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4.1 Update on 2017 Strategic Goals

Anticipate and adapt to changing resource mix

Initiative	Status
Forecasting: Load (short-term and mid-term), Solar and Wind	Adding a wind forecast for extreme conditions; target go-live Q4-17.
Inertia and Ancillary Service (AS) needs for changing Resources	Proposing changes to AS Methodology for Stakeholder review and Board approval; target completion Q4-17.
Develop white paper on Switchable Generation Resources and align concepts with Reliability Coordinator agreements	• Finalizing policy statement on coordinated operation of Switchable Generation Resources with neighboring ISOs. • Working on similar coordination issues with Mexico grid operator (CENACE) and applicable regulatory entities. Policy goals will be reflected in new/modified coordination agreements with SPP, MISO and CENANCE. • Revision requests (e.g., Current Operating Plan status changes) may be necessary to achieve operational alignment in ERCOT Protocols. • Target completion Q4-18.
Continued integration of intermittent resources through Intra-hour Wind Forecasting	Working with wind forecast vendor to add intra-hour forecasting.

Anticipate and adapt to changing resource mix (continued)

Initiative	Status
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.	Resource Definition Task Force, co-chaired by ERCOT, has been formed under the Protocol Revision Subcommittee to formalize the terms and requirements used for classifying generation in ERCOT binding documents. Binding document changes targeted for completion Q4-18.
Improve visibility and participation of distribution level resources: • Develop white paper to outline options for distributed energy resource (DER) participation in markets, and supported Distributed Renewable Energy & Ancillaries Markets (DREAM) Task Force	• Working with Stakeholders to map Registered Distributed Generation (DG) units to their appropriate Common Information Model (CIM) Loads. Target completion Q4-17. • Developing long-term process for mapping future units. Target completion Q2-18.

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

Initiative	Status
Facilitate transmission planning improvements; formalize load-scaling methodology	• PGRR042, Regional Transmission Plan Model Reserve Requirement and Load-Generation Imbalance Methodology, approved by Board Q4-16; partially implemented Q1-17; remaining language will be implemented Q1-18. • NPRR837 and PGRR059, Regional Planning Group (RPG) Process Reform, submitted into stakeholder process Q2-17.
Work with stakeholders in the Outage Coordination Task Force to identify high impact outages to more efficiently coordinate their submittal and approval	Completed NPRR758, Improved Transparency for Outages Potentially Having a High Economic Impact, Q3-17.
Consider redesign of Ancillary Services to ensure ERCOT continues to maintain grid reliability as the ERCOT System and Resource mix continue to evolve	Stakeholders have proposed changes to Ancillary Services via: • NPRR815, Revise the Limitation of Load Resources Providing Responsive Reserve (RRS) Service – September TAC. • NPRR828, Include Fast Frequency Response as a Subset of Responsive Reserve – October PRS ;and • NPRR835, Removing the Capacity Limits from Resources Providing Fast Responding Regulation Service (FRRS) – October PRS.
Conduct studies, as appropriate, to assess environmental regulatory impacts and communicate activities with Stakeholders	• Monitoring EPA proposed regulatory changes and relevant court decisions. • Working with PUCT to support efforts by TCEQ to implement existing requirements.
Development of rules to address risk of sub-synchronous oscillation (SSO) in the ERCOT region	NPRR562, Subsynchronous Resonance approved by Board Q2-17; partially implemented Q3-17; remaining language will be implemented Q4-17.

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

Initiative	Status
Real-Time Co-optimization issues being raised to the PUCT for discussion	Supporting ongoing discussions at PUCT Open meetings.
Explore improvements to scarcity pricing during Energy Emergency Alert, Emergency Response Service (ERS), Load Resource deployment: • 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	• Monitoring discussions on PUCT Docket No.47199 Assess Price-Formation Rules In ERCOT's Energy-Only Market. • Supporting stakeholder discussions regarding DG and ERS generators' access to Real-Time Energy Market.
Implement Phasor Measurement Unit (PMU) collection system	Completed vendor selection Q2-17. Project is in Planning Phase.
Establish market continuity principles	• Reviewed draft principles with August 2017 Board. • Reviewing draft NPRR; target Q4-17 stakeholder discussion.
Manage Integration of Distributed Generation: • Map Registered Distributed Generation to the transmission grid • Begin developing market rules framework for enabling Nodal (local) pricing to Registered DG units	• Working with stakeholders to map Registered DG units to appropriate CIM Loads and developing long-term process for mapping future units. Target completion Q2-18. • Internal discussions underway. Dependent on mapping initiative completion.

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

Initiative	Status
Implement Enterprise Content Alignment Program (ECAP) strategy and roadmap. ECAP projects include: • Implement Taxonomy into existing systems • Enterprise Content Management (ECM) Proof of Concept - Define, validate and recommend enterprise content management solution.	• Validation of taxonomy is ongoing. Selected taxonomy management software. Pilot implementation with ECM and Market Notices to begin planning Q1-18. • Vendor selected. ECMS Phase I Implementation project in Planning.
Improve communication consistency of Grid conditions by improving the reliability and performance of grid communication information technology.	End-to-end testing complete. Evaluating periodicity of testing.

Develop data services to support Market Participant needs:
• Implement MP Online functionality:
  ▪ Automate some manual Generation Interconnection or Change Request (GINR) processes to reduce errors and increase efficiency
  ▪ Replace existing Resource Asset Registration Form (RARF)
	• GINR: Execution phase; target go-live moved from Q3-17 to Q1-18.
	
	• RARF: Planning phase target completion Q4-17.

Full Interconnection Study process changes	• Study of first quarterly stability assessment in progress. • Review all current Generic Transmission Constraint exit strategies by Q3-18.

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Continually enhance our cyber and physical security posture

Initiative	Status
Participate in NERC Grid Ex IV 2017 planning and exercise	Planning 90% complete. Exercise scheduled for November 2017.
Continue progress on Critical Infrastructure Security Roadmap	2017 Roadmap is 80% complete.
Continue collaborative efforts on security issues	Ongoing work with various Industry/Government groups on security issues.
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)	• All DC4 projects have been initiated.
	  ▪ Eight projects active.
	  ▪ Three projects completed (network refresh, replacement of database servers and server migrations).
	• Committed spend is near 80% of forecasted budget.
	• Program is approximately 63% through estimated timeline.
	• DC4 procurement in progress with approximately 85% of purchases complete; target completion Q1-18.
	• Converged infrastructure and database storage migrations are in progress; target completion Q1-18.

Implement major upgrades: • Network Model Management System (NMMS) • Congestion Revenue Rights (CRR) Framework • Credit Monitoring and Management System (CMM) • Retail Technical Refresh	• NMMS Upgrade completed Q2-17. • CRR: Project in Execution; target go-live Q1-18. • CMM: Project Phase IA in Execution; target go-live Q1-18. • Retail: Evaluating effort and developing roadmap.
Optimize ERCOT release management and change management procedures and processes	Project is currently in Execution Phase; target go-live Q2-18.
Improve internal access management	Project initiated Q1-17; currently in first phase of planning.

Develop ERCOT resources - people and technology (continued)

Initiative	Status
Continue development of career paths: • Enhance job description repository • Benchmark critical positions	• Implement job repository tool; update all job descriptions; project begins Q1-18. • Evaluate critical positions in Legal and Cyber during Q3-17; in Operations and IT during 2018.
Measure Employee Satisfaction and Engagement	• Participate in Austin Best Place to Work Survey – Spring 2018. • Conduct quarterly internal pulse surveys - ongoing.
Continue focus on Management Development • Coaching classes and clinics • Interview training for all managers	• Programs developed and being delivered to all managers. • Pilot developed and delivered Q3-17. Roll-out to all managers 2018.
Continually improve impact assessment process.	• Conducting lessons learned on recent Impact Analysis changes; target Q4-17 completion. • Enhancing artifact detail to increase analysis transparency; ongoing. • Provide PRS a process overview Q4-17.

4.2 Review of 2018 Strategic Goals

Strategic Planning Session Summary

- Nine strategic sessions held in September with each Market Segment

- Broad stakeholder participation
  - 50 in person
  - 30+ via WebEx/phone

- Support for maintaining current strategic goals

2018 ERCOT Strategic Goals

In support of its mission to serve the public by ensuring a reliable grid, efficient electricity markets, open access and retail choice, ERCOT's goals are to:

1. Anticipate and adapt to changing resource mix:
   – Generation Resources
   – Demand Response
   – Distribution Level Resources

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

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

4. Continually enhance our cyber and physical security posture

5. Develop ERCOT resources – people and technology

Strategic Planning Session Feedback Summary

ERCOT reviewed these topics with stakeholders and received the following feedback:

- Modernizing ERCOT's digital engagement with stakeholders
  - Timely communication and transparency are important for stakeholder budgeting, planning, testing and implementation
  - General support for major initiatives such as RARF replacement, retail system improvements and improved authentication processes
  - Agreement on need for ERCOT and stakeholder IT professional user group interaction

- Distributed Energy Resources (DER)
  - Consensus on the need for clear rules, definitions and reporting requirements as DER continues to increase

- Transmission Planning
  - Reactive Power Coordination will provide an opportunity for improved voltage coordination with ERCOT and TDSPs; testing and education will be important

Strategic Planning Session Feedback Summary

Other general feedback:

- ERCOT is positioned to provide thought leadership to facilitate discussions on:
  - Exploring process changes to obtain IDR meter data quicker and/or improve estimation processes for wholesale billing
  - Documenting processes utilized in unique scenarios (i.e., Hurricane Harvey, utility to utility transitions, ETT outages)
  - Enhancing grid security
  - Topics that require general market education prior to decision making
- Providing additional detail to support ERCOT impact assessments will be beneficial
- Affiliate definition within ERCOT rules should be reviewed