



Item 4.1: CEO Update

Bill Magness

President & Chief Executive Officer
ERCOT

Board of Directors Meeting

ERCOT Public

April 9, 2019

State of the Grid

- ERCOT released its 2018 State of the Grid report today. The newly designed format features major accomplishments and annual statistics.
- Additional copies are available if needed.
- Informational videos on ERCOT and our role in the Texas electric system will be available soon.



2019 Variance to Budget (\$ in Millions)

Net Available Year-to-Date Actuals: \$4.8 M Favorable *(as of February 28, 2019)*

Total Revenues \$4.4 M [13.6%] Favorable including:

\$3.2 M over budget: Interest income due to higher investment balance and rates

\$0.4 M over budget: System Administration Fees due to weather and stronger economy

\$0.8 M over budget: Interconnection revenues

Total Expenditures \$0.4 M [1.2%] Favorable including:

\$1.1 M under budget: Project expenditures

\$1.0 M over budget: Resource management (\$-1.0 M staffing management; \$0.0 M project work)

Net Available Year-End Forecast: \$34.0 M Favorable *(as of March 28, 2019)*

Total Revenues \$27.0 M [12.7%] Favorable including:

\$18.7 M over budget: Interest income due to higher investment balance and rates

\$6.1 M over budget: System Administration Fees based on current actuals and load forecast for remainder of year

\$1.8 M over budget: Interconnection revenues

Total Expenditures \$7.0 M [3.5%] Favorable including:

\$8.1 M under budget: Project expenditures

\$1.5 M over budget: Resource management (\$-2.4 M staffing management; \$0.9 M project work)

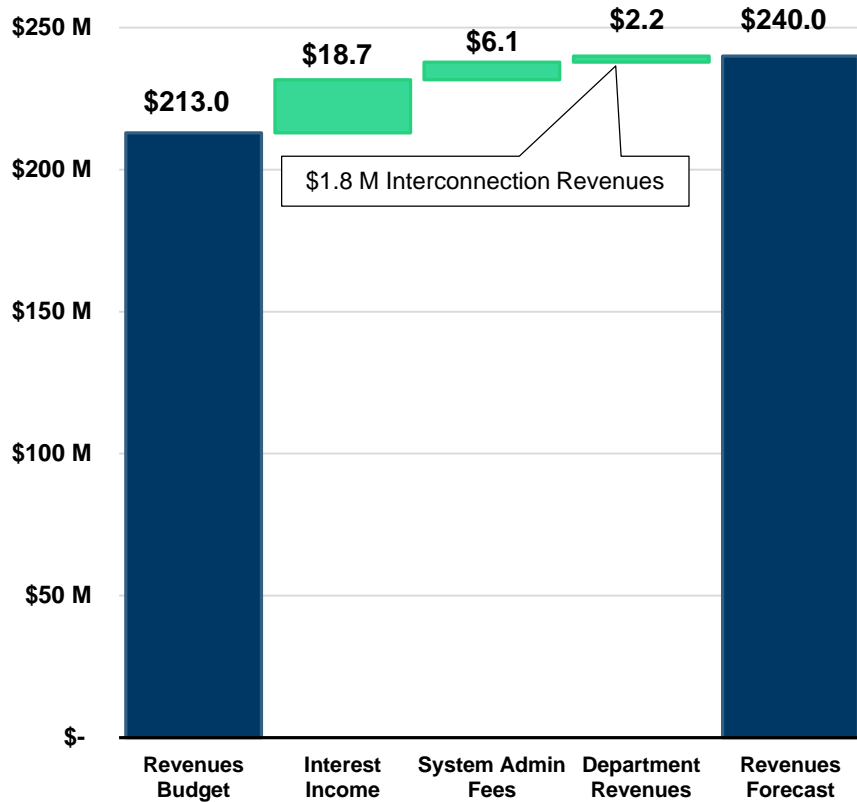
New Board Reporting Formats

- ERCOT is always considering new ways to present grid, markets, and corporate information in the most effective manner.
- We are implementing design changes to some of the updates presented to the Board, including:
 - Financial performance and forecasts
 - Major project updates
 - Operations reports
- Today, we are presenting the newly designed finance and major project updates.

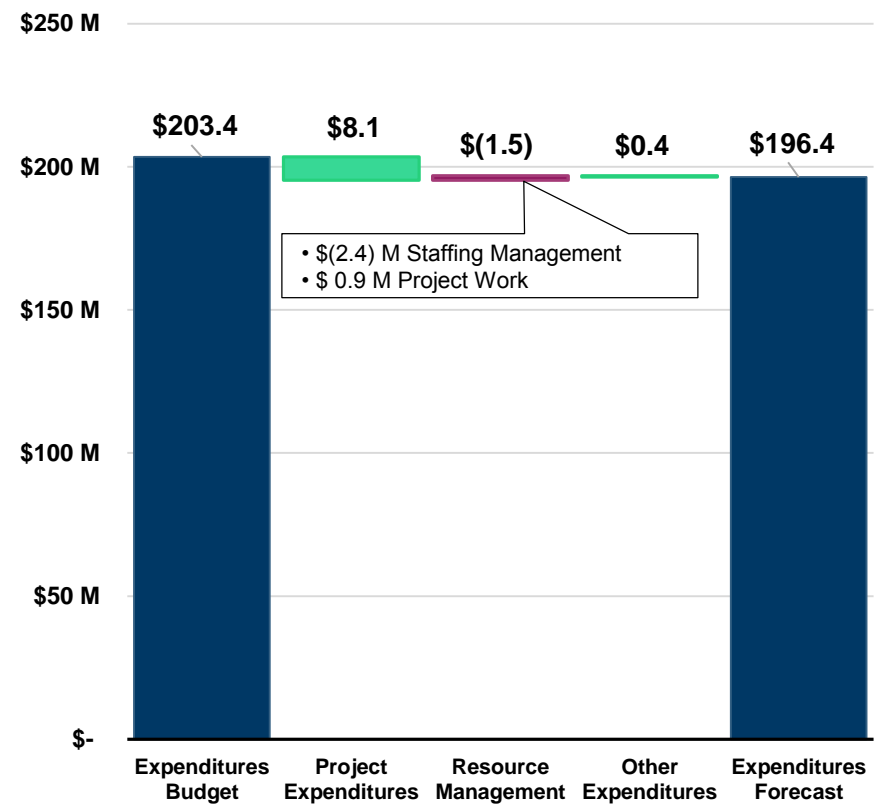
2019 Variance to Budget (\$ in Millions) – New Format

Net Available Year-End Forecast Variance to Budget = \$34.0 M

Revenues Year-End Forecast
Variance to Budget = \$27.0 M [12.7%]



Expenditures Year-End Forecast
Variance to Budget = \$7.0 M [3.5%]



Charts may not foot due to rounding.

Major Projects Update – New Format

Project	Trend	Active Work
Credit Monitoring & Management Refresh (CMM)	<ul style="list-style-type: none"> Tracking to June 2019 go-live 	<ul style="list-style-type: none"> Remaining defect resolution, integration testing and cutover preparation
Identity & Access Management (IAM)	<ul style="list-style-type: none"> Tracking to May 2019 go-live 	<ul style="list-style-type: none"> Remaining defect resolution, operational training, integration testing, production data readiness and cutover preparation
RIOO – Resource Asset Registration Form Replacement (RARF)	<ul style="list-style-type: none"> GINR - First Resource Integration & Ongoing Operations (RIOO) platform delivery. Last major release, Online Payment, went live March 2019. RARF re-planning effort complete and targeting: <ul style="list-style-type: none"> Q4-19 capability to view/update resource registration data 2020 capability to create a new resource registration data 	<ul style="list-style-type: none"> Resource onboarding; service, system and user experience design; data analysis & validation rules Ongoing market engagement through the Resource Integration Workshops
Retail Portfolio Refresh	<ul style="list-style-type: none"> Tracking to May 2019 go-live for ERCOT Flight Certification website Targeting 2020 go-live for EDI Map & Translator Replacement Targeting 2019 project starts: <ul style="list-style-type: none"> NAESB Data Transport Internal Monitoring & PUCT Reporting upgrade Retail registration system upgrade 	<ul style="list-style-type: none"> Flight Certification website: remaining defect resolution, integration testing and cutover preparation EDI Map & Translator Replacement: business rule creation and validation, test environment preparation Updates and applicable coordination through the Retail Market Subcommittee
Market Management System / Outage Scheduler Upgrade (MMS/OS)	<ul style="list-style-type: none"> Tracking to start planning phase in Q2-19; targeting go-live in late 2020 / early 2021 	<ul style="list-style-type: none"> Assembling resources and tasks required for planning activity Coordination with Real-Time Co-optimization planning team
Data Center Refresh (DC4)	<ul style="list-style-type: none"> Tracking to December 2019 for last project go-live 	<ul style="list-style-type: none"> Remaining 3 of 12 DC4 projects address: telecom VoIP, MV-90 communications and hardware located at vendor sites

Real-Time Co-optimization Implementation

- ERCOT created an internal team to work with stakeholders to design and implement Real-Time Co-optimization.
 - ERCOT Director of Compliance Matt Mereness will lead this group.
- A Real-Time Co-optimization Task Force (RTCTF) was formed to work with ERCOT.
 - The task force will report directly to the Technical Advisory Committee (TAC).
 - ERCOT's Matt Mereness will chair the task force, and Bryan Sams of Lone Star Transmission will serve as Vice Chair.
- The Public Utility Commission has opened a rulemaking to consider Substantive Rule changes and policy issues.
- Moving forward, ERCOT and TAC will present design principles to the Board for approval. This will drive protocol changes that will also need TAC and Board approval.

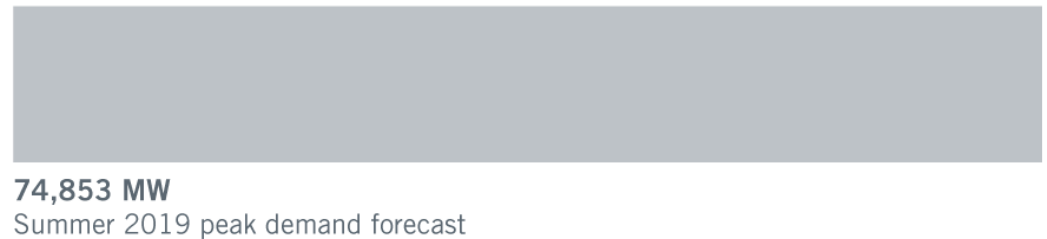
2019 R2 Release Summary

R2 Release Dates: April 2-4, 2019

- 83 Change Requests across the application areas
- NPRRs
 - NPRR817: Create a Panhandle Hub
 - NPRR833: Modify PTP Obligation Bid Clearing Change | DAM/SCED system changes
 - NPRR845: RMR Process and Agreement Revisions
 - NPRR847: Exceptional Fuel Cost Included in the Mitigated Offer Cap
 - NPRR865: Publish RTM Shift Factors for Hubs, Load Zones, and DC Ties
 - NPRR866: Mapping Registered Distributed Generation and Load Resources to Transmission Loads in the Network Operations Model
 - NPRR880: Publish Real-Time Market Shift Factors for Private Use Network Settlement Points
 - RRGR017: Related to NPRR866, Mapping Registered Distributed Generation and Load Resources to Transmission Loads in the Network Operations Model
 - VCMRR021: Related to NPRR847, Exceptional Fuel Cost Included in the Mitigated Offer Cap
- R2 impacted functional areas
 - Current Day Reports, Data and Information Products, Data Management & Governance, Energy Management System, Infrastructure, Market Information System, Market Management System, Market Settlements, Network Model Management System, Outage Scheduling, Public Dashboards, Web Communications

March 5: Preliminary Summer SARA

- On March 5, ERCOT released its final spring and preliminary Seasonal Assessment of Resource Adequacy (SARA) reports
- Record electric use anticipated for summer 2019
- In all scenarios studied, there was a potential need to issue an energy alert
- Additional resources are available when an energy alert is declared
- Final summer SARA and Capacity, Demand and Reserves (CDR) Report will be released May 8**



New operational units included in this report:

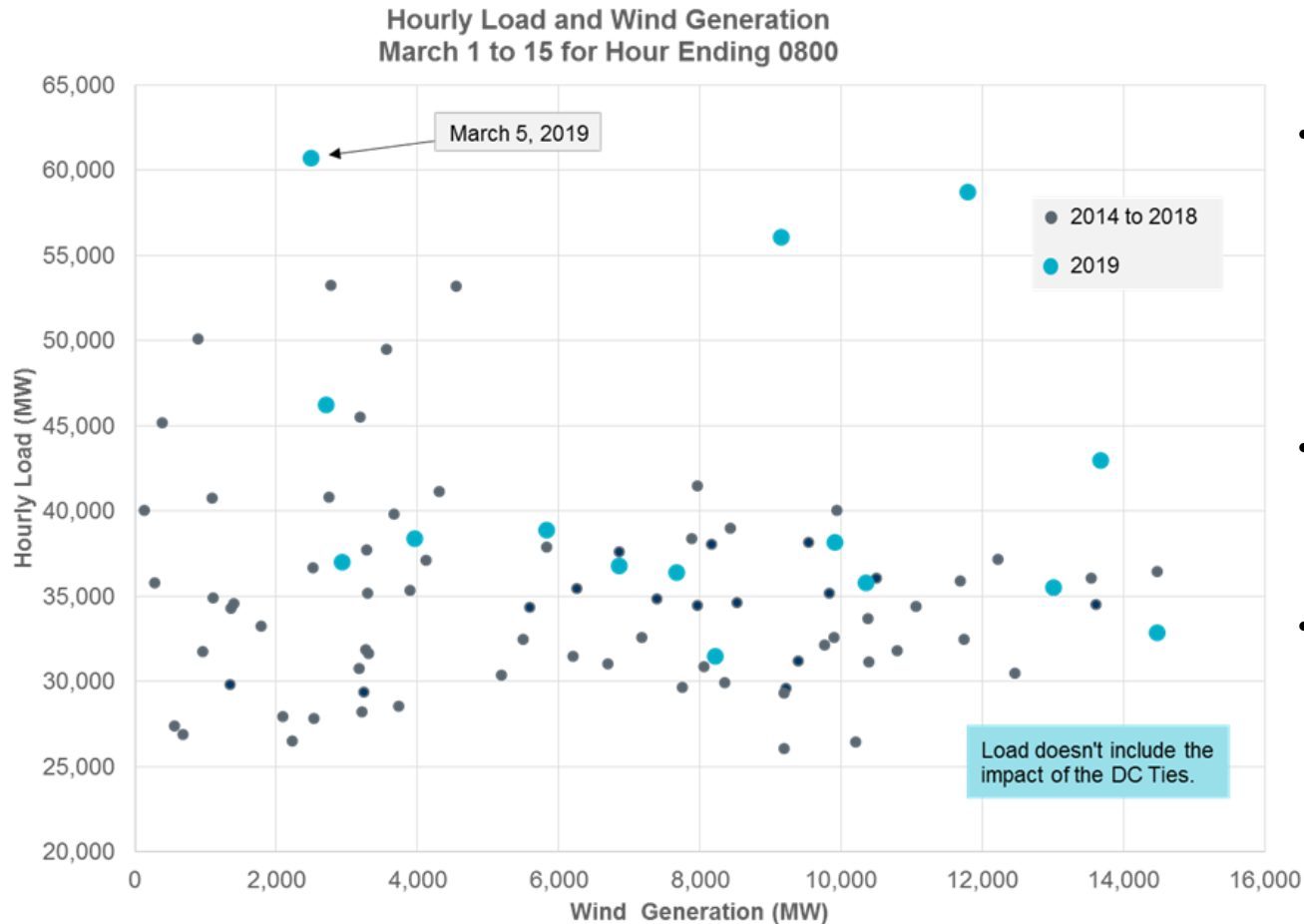


172 MW solar

Summer capacity rating

Source: Preliminary summer SARA report

March 3-6: Cold Weather Event



- New monthly peak demand record set on March 5 due to extreme cold temperatures across the ERCOT region
 - 60,692 MW between 7 and 8 a.m.
- 51 Texas cities set record low temperatures the morning of March 5
- Challenging combination during peak days of low temperatures, low wind, high load and high number of planned outages

March 3-6: ERCOT Actions and Next Steps

- As the cold weather event approached, ERCOT forecast the system could be short to cover load and reserves by 3,000 to 6,000 MW.
- ERCOT actions focused on delaying scheduled outages that had not begun prior to forecast peak day morning loads. Actions affecting planned outages in the spring are especially sensitive due to the need for summer peak season readiness.
- ERCOT presented its after-action report at the March 27 TAC meeting and April 4 PUC Open Meeting.
- A new TAC task force will consider improvements for when future situations present similar challenges, including changes involving:
 - Communications and procedures during anticipated emergency conditions
 - Market visibility of forecasts utilized by ERCOT as conditions change
 - Process governing delay or withdrawal of planned outages
 - Consideration of cost recovery related to postponing or cancelling outages for reliability reasons

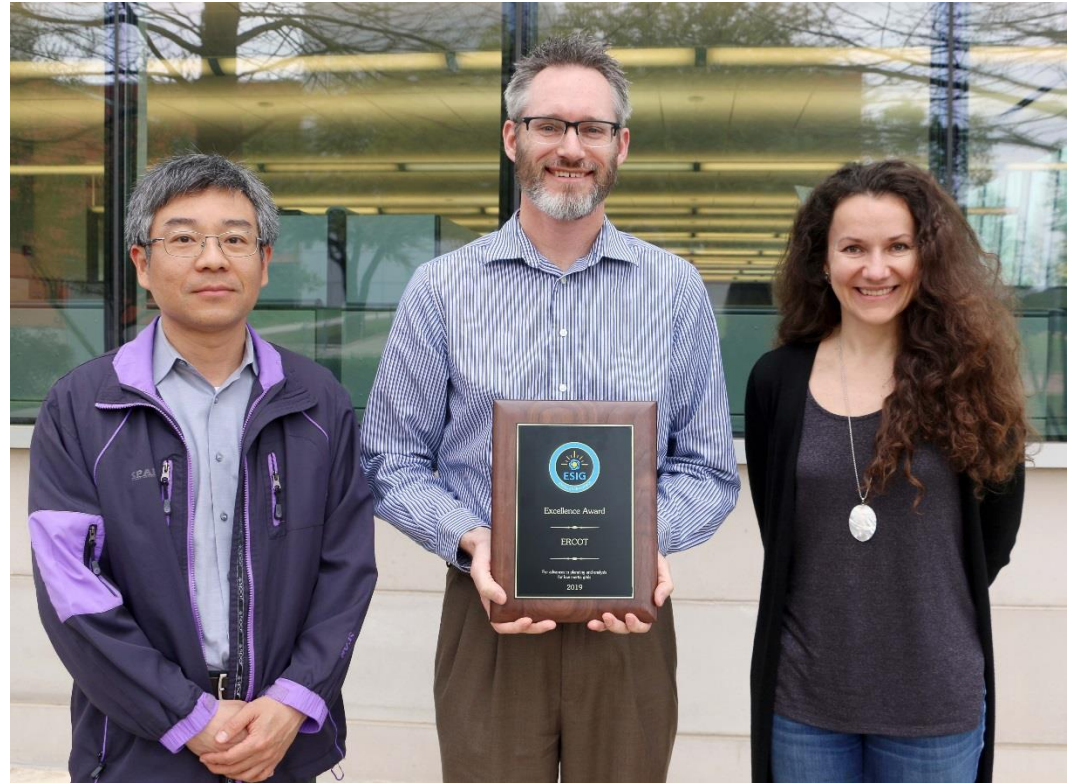
Legislative & Policy Updates

- ERCOT is tracking a number of bills pending at the Texas Legislature.
 - ERCOT staff has participated as a resource witness in House and Senate hearings.
 - Last day of session is May 27
- On March 26, President Trump issued an executive order: “Coordinating National Resilience to Electromagnetic Pulses.”
 - Requirements established for federal agencies, including Departments of State, Defense, Energy, Homeland Security



ERCOT Staff Recognized for Advancing Grid Reliability

- Three ERCOT employees received Excellence Awards from the Energy Systems Integration Group (ESIG) during their annual spring meeting.
- Planning Engineer Lead Julia Matevosjana and Regional Planning Manager Fred Huang were recognized for their work on inertia and grid reliability.
- Senior Manager of Transmission Planning Jeff Billo was recognized for reliability improvements related to the integration of solar power.
- Thanks to all of the ERCOT staff who are working to address these issues.



Completed: Updates to Corporate Governing Documents

- Last year, the Board and membership approved significant changes to ERCOT's bylaws and its Amended and Restated Certificate of Formation (formerly known as the Articles of Incorporation).
- This was the first update of the Certificate of Formation in almost 20 years.
- We appreciate the substantial contributions from many stakeholder representatives in developing the bylaws amendments.
- Thanks to the ERCOT Legal staff for their efforts to coordinate the update of ERCOT's central corporate documents.

