Item 4.1: CEO Update

H.B. "Trip" Doggett
President & Chief Executive Officer

Board of Directors Meeting
ERCOT Public
November 19, 2013

Financial Performance (Updated through October)

YTD Budget vs. Actual Performance: $0.2 Million Unfavorable

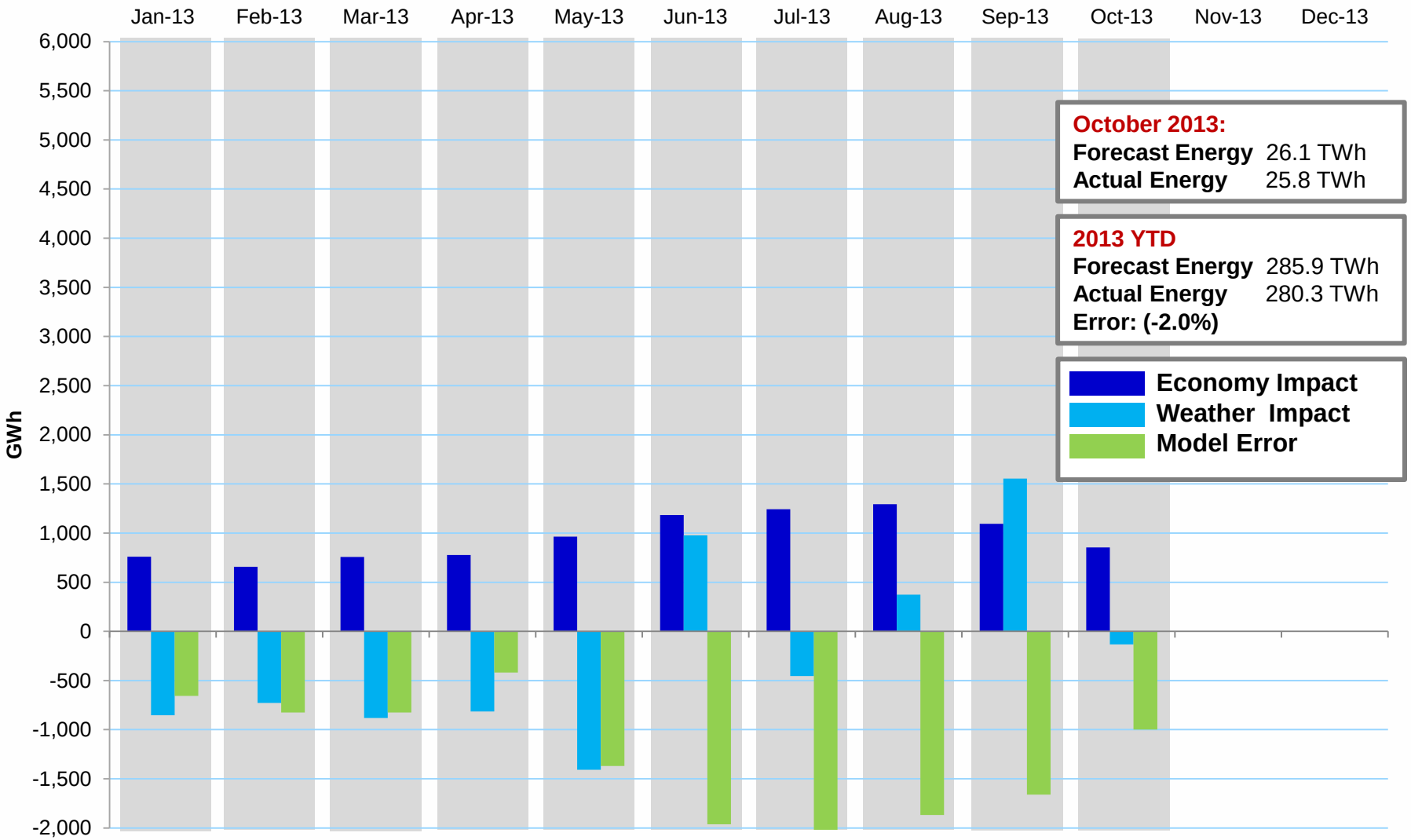
Revenues	$2.3 M unfavorable system administration fees $1.3 M unfavorable 2012 carry forward
Expenses	$1.6 M unfavorable salaries and related benefits $1.6 M unfavorable outside services $2.0 M favorable facility and equipment cost $1.9 M favorable principal repayment $1.5 M favorable hardware/software maintenance & licensing $1.1 M favorable revenue-funded project expenditures

Financial Performance (Updated through October)

Year-End Performance Forecast: No Variance

Revenues	$1.8 M unfavorable system administration fees $1.3 M unfavorable 2012 carry forward
Expenses	$2.0 M unfavorable outside services $0.7 M unfavorable salaries and related benefits $2.1 M favorable facility and equipment cost $1.9 M favorable principal repayment $1.8 M favorable hardware/software maintenance & licensing

Impacts of Economy & Weather 2013



2013 Winter SARA (Final)

Item	Winter 2013	Forecasted Season Peak Load	Extreme Load/Typical Generation Outages	Extreme Load/Extreme Generation Outages
1	Total Resources	73,901		
2	Peak Demand	49,116		
3	Uses of Reserve Capacity	5,616	17,908	22,234
4	Capacity Available for Operating Reserves* (1-2-3)	19,169	6,877	2,551

- System appears to be well-prepared for winter electric needs
- Winter peak forecast is based on Dec 2008 weather
- Drought conditions are not expected to affect operations during the coming winter months

*Less than 2300MW indicates risk of EEA1

Extreme Weather Assessment

Under PUCT Rules effective March 22, 2011, ERCOT is charged with assessment of the reliability and adequacy of the system during extreme weather.

For the 2012-13 winter, forty generation sites were visited for review of weatherization preparedness.

- ERCOT visited generation sites that had performance problems in February 2011 and that were not visited in the 2011-2012 spot checks
- 2012-13 spot checks included all generators that had performance problems during February 2011
- The implementation of weatherization plans submitted to ERCOT by resource entity is reviewed during spot checks for completion
- ERCOT is planning spot checks for the 2013-2014 winter starting with Black Start resources and newly constructed generators.
- Operations Planning randomly selects a subset of generators to be included in spot checks

ERCOT Observations from 2012-13 Site Visits

Plants have identified causes and taken the following measures to prevent freezing:

- Repaired or replaced heat trace
- Identified a need for wind barriers
- Replaced insulation
- Relocated critical transmitters
- Revising plant procedures and checklists for weatherization

Temporary (winter months only) enclosure to protect boiler drum level critical transmitters

Update: Real-Time Market (RTM) Settlement Timeline

- **NPRR570, Reduce RTM Settlement Timeline to Operating Day Plus Five**
  - To be considered at the November BOD meeting
  - By 5/1/2014, this NPRR will eliminate 2 days from the RTM Initial and RTM Final settlement timelines, achieving settlement at 'OD+5' and 'OD+55', respectively

- **The Commercial Operations Subcommittee (COPS) is evaluating details associated with even faster settlement timelines. Stakeholders requested to evaluate the feasibility of options relative to their organization. Key considerations Include:**
  - Meter Data Availability
    - Limitations due to communication failures outside of TDSP or ERCOT control
    - Technical and regulatory limitations for submittal of Competitive IDR (Interval Data Recorder) data
    - Timing for receipt and use of all load data
    - Current protocol defined processes for estimating load
    - Timeline required for completion of retail registration processes prior to aggregating load for settlement
  - ERCOT-Polled Settlement (EPS) Meter Data Substitute (EPS meters provide generation and NOIE bi-directional meter data)
    - Merit of using an EPS data substitute vs. market staffing for 7-day/week operations
    - Substitute data options for EPS meter data
  - Settlement Mechanism
    - Options to accelerate settlement of all or specific real-time activity, with consideration to timing of the Day-Ahead Market settlement
      - Potential of increased resettlement activity after the first settlement iteration
      - Impacts on Statement, Invoice, Charge Type, Dispute, Credit, and Data Extract constructs
      - Magnitude of impact to market shadow settlement systems and processes
      - Availability of "final" real-time prices relative to the timing of real-time settlement

Evolution of ERCOT's Nodal RTM Settlement Timeline

- **In comparison to the timelines at Nodal go-live, after the implementation of NPRR570**
  - The timeline to post the RTM settlement statements is half as long
  - The timeline from Operating Day to cash clearing is reduced by more than 2 weeks

- **Currently, ERCOT's cash clearing timeline is consistent with the faster settling ISOs/RTOs in North America. However, upon implementation of NPRR 570 ERCOT's timeline will be the fastest.**

Period	Statement	Invoice	Comments
12/2010 – 11/2011	OD+10	Issued Weekly, due in 5 Business Days	The Nodal market adopted the RTM settlement timelines from Zonal
12/2011 – 10/2012	OD+9	No Change	NPRR391 Removed of approximately 2 days from the cash clearing timeline
11/2012 – 3/2013	OD+9	Issued daily, due in 2 Bank Business Days	NPRR347 Removed an additional 7-14 days from the cash clearing timeline
4/2013 – 7/2013; 8/2013 – 12/2013	OD+8; OD+7	No Change	NPRR509 (Phase 1 & Phase 2) • Removed an additional 2 days from the cash clearing timeline
1/2014 – 4/2014; 5/2015 forward	OD+6; OD+5	No Change	NPRR570 (Phase 1 & Phase 2) • Will remove an additional 2 days from the cash clearing timeline
Future	*TBD*	*TBD*	*Stakeholder consideration:* • *Addressing key considerations noted on the previous slide* • *Understanding the benefit vs. the cost of any option* • *Realizing the benefits and impacts of the OD+6 and OD+5 timelines*

Kay Bailey Hutchinson Desalination Plant

- Ken McIntyre and Kent Saathoff visited El Paso Water Utilities' Kay Bailey Hutchinson Desalination plant in October
- Desalination plants are one option to address continuing drought concerns in Texas and are being considered by many water utilities
- Most plants operate using reverse osmosis technology that requires a significant amount of electric energy to run large pumps
- The El Paso plant :
  - Has five modules of reverse osmosis membranes; each module requires a 350 HP (260 KW) pump
  - Produces 15 million gallons/day (mgd) of purified water from 20 mgd brackish groundwater
  - Produces water at a cost ~ 3 - 4x cost from other sources; cost of electricity is major factor
- Electric demand and water production adjusted by turning each module off or on
- Could become significant load and potential for demand side resources in ERCOT

R5 Release Deployment

Successfully deployed R5 to production

- Release dates: September 23 – September 28
- 105 changes across major application areas
- Four NPRRs, one SCR, one NOGRR and 2 internal projects
  - NPRR207 – Unit Deselection
  - NPRR385 – Negative Price Floor
  - NPRR457 – Conditional TDSP ESIID Attribute Information for 814_20 Transactions
  - NPRR514 – Seasonal Generation Resource
  - SCR770 – Revision to Outage Scheduling Entry for resource Maintenance Outage Level Designation
  - NOGRR101 – Market Notice for DC-Tie Outage Information
  - Siebel Upgrade
  - Additional Resource Data for Outage Scheduler
- Improvements to key areas included
  - Market Management, Energy Management, Outage Scheduling, and Network Model Management
  - ERCOT.com, MIS Portal and Data Extracts/Reports
  - Retail

NPRR484 Project Team Recognition

Background

- NPRR484 (Revisions to Congestion Revenue Rights Credit Calculations and Payments) implementation divided into two phases
- First phase, to deliver the core functionality, required a very aggressive 6-month project schedule and a strong commitment and dedication from the project team to meet the go-live date with a working solution
- First phase went live on October 21, as scheduled, and ERCOT would like to recognize the key project team members who contributed to this success

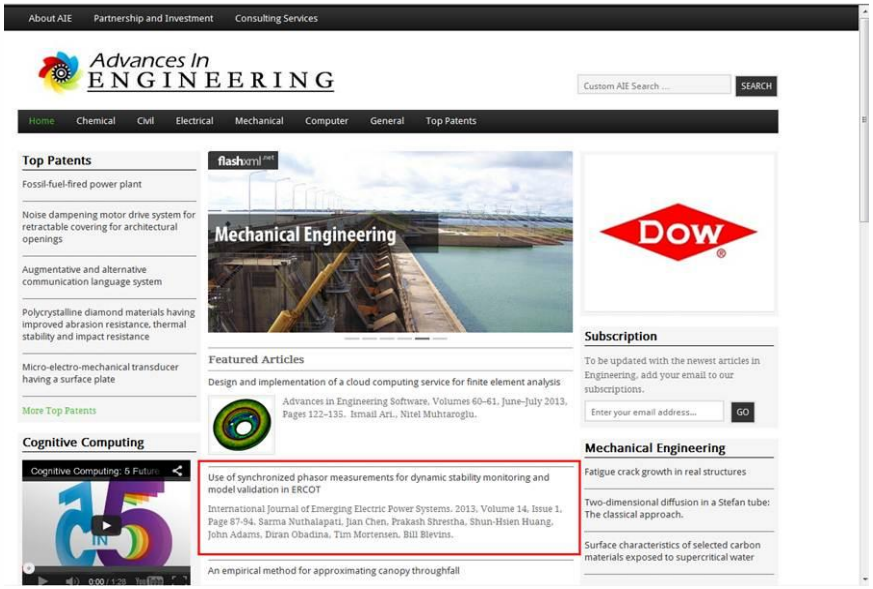
Project Team Members

Business	Suresh Pabbisetty, Matt Mereness, Vanessa Spells, Vicki Scott, Maruthi Gaddam, Ramya Nagarajan, Zaldy Zapanta
IT	Ramesh Kaul, Cathy Toth, Raiff Kafeel, Anutosh Adhikary, Manas Trivedi, Susan Jinright, Yong Cheng
Business Integration	Janice Ayson, Mike Taylor

Advances in Engineering spotlights ERCOT Staff Paper

- "Use of Synchronized Phasor Measurements for Model Validation in ERCOT" was recently cited in the Advances in Engineering series as being of specific interest to the Engineering, Scientific and Industrial communities.

- Sarma Nuthalapati, Jian Chen, Prakash Shrestha, Shun-Hsien Huang, John Adams, Diran Obadina, Tim Mortensen, Bill Blevins authored the paper, which discusses how ERCOT uses recorded Phasor Measurement Unit (PMU) data and post-event analyses to validate dynamic models of conventional and wind generators.



ERCOT Cited for Education Partnership

On October 2, ERCOT was publicly recognized by the State Board of Education and the Texas Education Agency as one of 12 Texas employers named as a recipient of the 2013 Employers for Education Excellence Award.

ERCOT was recognized for providing valuable mentoring services to Taylor ISD students, including:

- The Beginners Learning Alternative Designs of Energy (BLADE) club
- The Mentor-a-Pasemann-Student (MAPS) program
- Mentor students during lunch (MUNCH)