

ERCOT Strategic Plan Development Board Retreat September 16, 2013

Draft: Sep. 10, 2013



Scope of Work

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- Facilitation of Strategic Plan Development for ERCOT
- Incorporate feedback from Board of Directors Strategic Retreat
- Align Business Plans to support the ERCOT Strategic Plan



Strategic Drivers

- Key trends and issues driving strategic initiatives within ERCOT as identified by Stakeholders:
 - Resource Adequacy
 - Trends / Changes in Fuel Prices and Installed Resource Costs
 - Single Fuel Dependency
 - Gas / Electric market coordination issues
 - Increased Need for Flexible Resources
 - Environmental
 - "Downstream" Distribution Technology Change
 - "Upstream" Transmission and Generation Technology Change
 - Water resource management
 - Continuing growth of renewables penetration
 - New and uncertain resource technologies
 - Environmental pressures on Transmission and Generation facilities



Strategic Plan Organizational Responsibilities



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Key Strategies

- <u>Operational Reliability</u> Anticipate and communicate potential reliability issues through improved enterprise wide planning processes, probability scenario analyses and grid impact evaluations.
- Flexible Market Design Work to anticipate and respond rapidly to changes in market dynamics, rules, processes and systems that are directed toward maintaining a highly reliable grid and open access to ERCOT markets.
- Data Transparency & Access

 Continue to evolve ERCOT's role as an information gateway for electricity markets in Texas recognizing its unique role and the value created for consumers and stakeholders of relevant and timely market and technical information.
- <u>Committee Strategic Alignment</u> Further evolve the stakeholder committee process to improve strategic alignment of processes and outcomes including the use of strategic alignment and efficiency goals and measures.





Operational Reliability

Anticipate and communicate potential reliability issues through improved enterprise wide planning processes, probability scenario analyses and grid impact evaluations.

- Evolve ERCOT culture to include active examination of potential future change influences and impacts including more active scenario planning throughout the enterprise.
- Maintain reliability by examining potential impacts of changing technologies.
- Continually assess the planning processes within ERCOT to optimize efficiency and ensure a broad range of potential data sources are considered for inclusion in analysis.
- Invest in resources to enable ERCOT to both provide bench strength as well as critical skills in emerging energy technologies, systems and market constructs.
- Continuously and dynamically adjust ERCOT's activities to anticipate trends and provide "unbiased" and "independent" advice to stakeholders regarding major trends
- Develop strategic tracking from a variety of different sources to anticipate trends to increase reliability awareness



Operational Reliability Examples

- Work with policy makers and stakeholders to implement market changes to address Resource Adequacy.
- Perform analysis of resource portfolio to identify risks to reliability and potential market impacts.
 - Analyze impacts of potential gas curtailments
 - Analyze aging resource portfolio and potential retirement scenarios
 - Explore economic impacts of transmission outages
 - Impacts of environmental regulations
 - Fuel diversity
- Enhance reporting on seasonal basis.
 - Continually improve load forecasting
 - Evaluate impact of drought
- Examine the reserve margin and utilization of 1 in 10 Loss of Load Probability (LOLP).
- Integration of new supply and demand resource technologies into market.
- Proactively address congestion and reliability issues through improved planning process and outage coordination.
- Enhance operating tools:
 - Situational awareness
 - Phasor measurement technology
 - System upgrades
 - Resource Asset Registration Form (RARF) replacement
- Enhance approaches to attract and retain talent.





Flexible Market Design

Work to anticipate and respond rapidly to changes in market dynamics, rules, processes and systems that are directed toward maintaining a highly reliable grid and open access to ERCOT markets.

- As a means to ensure flexibility in approach to key structural change issues, ERCOT will continue to forge stronger coordination between markets, operations and planning groups.
- Promote culture that fosters innovation, flexibility and collaboration with stakeholders and across business divisions while enhancing existing change management processes to more fully integrate with market operations and planning.
- To ensure appropriate integration and utilization of resources available to the market explore the capabilities and behaviors of various emerging technologies.
- Enhance the IT Roadmap to anticipate change, map current and future projects, and create more flexible, efficient and effective system changes.
- Recognize need to remain cost effective in time of change while still seeking to create a more flexible, efficient and effective system environment consistent.



Flexible Market Design Examples

- Evaluate the disaggregation of current ancillary services to support future reliability in recognition of changing resources.
- Forward thinking flexibility in market design to capture the full benefits of demand response and distributed generation.
- Evaluate potential improvements to credit and collateral requirements.
- Enhance change management processes.
 - Evaluate IT system automated deployments for greater efficiency
 - Mature the release management approach to accommodate more change
- Continue to provide unbiased and independent advice to the industry, stakeholders and policy makers.
- Seek opportunities to simplify market rules.
- Identify and address potential barriers to entry.
- Work with stakeholders to ease demand on resources (both financial and human) by clearly defining strategic objectives and focusing efforts across the market.



Data Transparency and Access

Continue to evolve ERCOT's role as an information gateway for electricity markets in Texas recognizing its unique role and the value created for consumers and stakeholders of relevant and timely market and technical information.

- ERCOT will proactively serve as a catalyst and venue for market participants to gain enhanced access to available information
- Evaluate overall organizational, business and technical capabilities to position ERCOT to be even more flexible and responsive to market conditions
- Proactively assess and understand the evolving market participant needs, operations and capabilities to exchange and act on ERCOT-provided data





Data Transparency and Access Examples

- Engage stakeholders to develop a long-term data, information and access strategy.
 - Facilitate discussion to better support the development of retail products
 - Evaluate information provided to stakeholders for relevancy and continued improvement
- Evaluate the need to develop a Common Information Model (CIM) reader to translate state estimator data.
- Develop a business model for a data management support organization.
- Evaluate options for the Enterprise Data Warehouse (EDW) to address growth and usage.
- Analyze Application Programming Interface (API) options for more flexible data exchange.





Committee Strategic Alignment

- Improve strategic alignment among the ERCOT Board of Directors, ERCOT organization and ERCOT stakeholders by a Board annual review process of subcommittees, setting of annual strategic goals, greater participation of ERCOT Executives, and an enhanced process to evaluate proposed market rule revisions.
- Examples:
 - The Board of Directors will identify and assign strategic goals to its sub-committees to provide consistency and alignment to the ERCOT strategic plan. TAC will ensure alignment to these goals down through the ERCOT committee structure.
 - ERCOT staff will work with Sponsors of Revision Requests to categorize them as one of the following:
 - Addressing Current Operational Issues
 - Meeting strategic goals (tied to the Plan or as directed by the Board of Directors)
 - Administrative
 - Regulatory
 - Greater involvement of ERCOT executive staff, in partnership with TAC, will maintain a high level focus on the strategic direction of the market and potential impacts to the ERCOT organization.
 - The Sponsor will be responsible to complete the benefits portion (quantitative and qualitative) of the Revision Request. ERCOT will comment on reasonableness of approach, assumptions and methodology to develop Benefits from either CBA or Business Case.
 - The Board of Directors, through the periodic budget review process will ensure alignment of sub-group efforts with the overall strategic direction of ERCOT.



Next Steps

- Feedback gathered during the Strategic Retreat will be consolidated and applied to appropriate documents.
- HR&G will review the proposed changes to the ERCOT Strategy for final consideration at the November Board of Directors meeting.
- The Board of Directors will consider the ERCOT Strategy in November and acknowledge acceptance or remand to HR&G for further review.
- The Board of Directors will set direction for the Technical Advisory Committee (TAC) based upon the agreed strategy.





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