ERCOT LTS UPDATE

October, 2011

Recent Scenario Development Activity

In September and October, ERCOT LTS staff initiated a dialogue with several ERCOT Work groups (WMS, DSWG, ETWG, and TAC) and the PUCT led AMIT to solicit information necessary to back-fill gaps in information.

ERCOT is actively working to solicit input from the stakeholder community to improve and expand the economic and technical accuracy of the Long Term Study Work Product. After a careful review of comments received to date, the following areas are in need of stakeholder input (this list is not all-inclusive):

Resource-Specific Technical Considerations

- Modeling details for technologies such as EE, DSM, Storage, Solar and wind
  - Potential supply
  - Installation costs
  - Variable cost
  - Resource availability
  - Coal Price Scenarios
  - Future use of lignite resources

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KEY LTS MEETING DATES:

October 27th
Joint LTS TF DSWG

October 31st
ETWG W/ LTS Discussion

November 1st
LTS Meeting Canceled

November 9th
WMS W/ LTS Discussion

November 10th
ROS W/ LTS Discussion

November 18th
DSWG W/ LTS Discussion

December 5th
LTS Meeting Canceled

KEY PROJECT MILESTONES

Milestone	Kick-off Meetings	Draft Interim Report due to DOE	Interim Report due to DOE	LTSA for State Legislature	Draft Final Report	Final Report due to DOE
Timeline	April, 2010	June, 2011	August, 2011	December, 2012	April, 2013	June, 2013
Work Product	Initial Development Business as Usual Case (BAU) & Modeling		Alternative Scenario Development & Modeling		Final work product	
Stakeholder Process	Monthly introductory meetings		Quarterly LTS meetings with interim workgroup meetings			

Upcoming Request For Proposals

ERCOT, as part of the long-term study and other planning needs, is in the process of formulating two requests for proposals. These proposals continue to focus on developing the ERCOT tool set necessary to broadly explore alternatives.

Ancillary Services

Develop a set of tools to analyze the operational system reliability needs of the ERCOT system.

In developing future scenarios with increasing amounts of variable and non-dispatchable resources and other new technologies, ERCOT will require tools that quantify the operational reliability needs of the system in order to assess the adequacy of resources included in each scenario. Given that current ancillary service definitions may not represent the most cost-effective means for maintaining future system operational reliability, these tools will be designed to quantify the adequacy of resources in a manner independent of currently procured ancillary services.

Wind Generation RFP

Determine historic and future wind generation potential at site specific, existing, future, and potential wind sites.

The proliferation of wind generation on the ERCOT system has set records in renewable generation and redefined the constraints of the ERCOT grid. To aide in long term planning and better represent divergent scenarios; Long Term Planning seeks detailed information about historic actual and potential wind generation data at existing, potential, and future sites. This information is useful to determine ancillary service requirements, as well as future transmission infrastructure needs.

Recent Scenario Development Activity… (continued from page 1)

Economic

- Fuel Prices
  - Natural Gas Price Scenarios
  - Coal Price Scenarios
  - Future use of lignite resources
- Economic impacts on load growth, including urbanization, Energy Efficiency (EE), Demand Side Management (DSM), Electric Vehicles (EV)
- Modeling of continued economic uncertainty
- Revenue Adequacy for generator build
- Cost Estimates for Transmission Infrastructure
  - Urban versus rural development costs differences
  - Cost escalation assumptions
- Cost Estimates for Resource Infrastructure - Capital Costs, O&M, and learning curve cost savings associated with existing and emerging technologies

Expanded Tie Capacity:

- Evaluating increased system ties between ERCOT and surrounding regions (SPP, Entergy, Mexico, WECC) in future scenarios

Generation Siting

- Identification of potential Brownfield sites
- Water availability issues and limitations on generation development

Regulatory and Market Design

- How to address resource adequacy over the 20 year horizon

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NGO PARTICIPATION

The LTS TF project specifically includes outreach efforts to involve non-profit Non-Governmental Organizations (NGOs) that have not traditionally participated in ERCOT's planning activities. In addition, the project budget includes funds for NGO representatives to request reimbursement for their time and expenses incurred while participating in the project.

ERCOT urges representatives of NGOs that have an interest in electric transmission planning in the ERCOT Interconnection to learn about the ERCOT project, register to receive project updates, and participate in meetings and planning activities.

Ongoing Efforts

Joint DSWG/LTS Meeting October 27th

On Thursday, October 27th ERCOT LTS staff and stakeholders convened a working session with the ERCOT Demand Side Working Group to review Demand Side Management, Interruptible load, Energy Efficiency and variables associated with these technologies including potential supply, installation costs, variable cost of resource, availability, and projections.

LTS Status Check

Over the course of the first 18 months of the LTS process, ERCOT has developed the following:

- Developed load forecasts for the ERCOT Region to the year 2030
- Acquired new modeling tools, including the PROMOD IV platform
- Developed a transmission grid simplification process to assist in conducting planning over the extended study horizon.
- Developed a resource portfolio representative of the existing ERCOT Fleet
- Developed a process to assess the economic viability of incremental resources in the ERCOT System across the extended study horizon.
- Developed scenarios, including a "Business as Usual" case, to bound potential future market and regulatory conditions. Additional scenarios are in development.
- Assessed existing and emerging technologies for inclusion in the LTS.
- Included economic and technical characteristics of both new and existing technologies to the extent that they are publically available or made available from the ERCOT stakeholder community.
- Issued an Interim Report, summarizing progress to date, on the ERCOT Website.
- Received feedback from the stakeholder community, detailing areas for improvement.

Recent Scenario Development Activity… (continued from page 3)

- Mechanisms to value / compensate capacity development, including EE and DSM
- Incorporation of pending and/or potential environmental regulations
- Energy Policy regarding incentives for specific technologies
- Water Policy and availability

Timeline:

- ERCOT seeks stakeholder input on the above issues over the course of the next six months.
  - These inputs will be vetted through a fully represented stakeholder community, unless confidentiality issues prevent doing so.
  - Should market sensitive details prevent presentation in stakeholder forums ERCOT LTS staff will meet with individual stakeholders to determine effective ways to include new or improved model input while maintaining confidentiality of sensitive data.

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Information

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The Electric Reliability Council of Texas ensures a reliable electric grid and efficient electricity markets.

ERCOT