

# ERCOT LTS UPDATE

March 2012

## Scenarios Finalized

ERCOT LTS, working with stakeholders has finalized the scenarios for the Long Term Study

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## RFP is posted

ERCOT seeks a tool to adequately analyze resource builds with increasing proportions of non-traditional resources.

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## Results of the BAU complete

ERCOT will present the results of the BAU scenario in the April 2012 Quarterly meeting

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## Scenario Development Finalized

ERCOT, with the assistance of stakeholders, has developed a final set of scenarios for use in the long-term study. These scenarios are intended to represent a broad spectrum of potential futures that will define system topology in the Long Term Study (LTS.)

The three main scenarios are (1) Business as Usual (BAU), (2) Drought, and (3) Environmental. The BAU scenario will be expanded to include new and emerging technologies. The Drought Scenario, developed with assistance from Sandia National Labs, considers the impact of water limitations and extreme temperatures. The Environmental Scenario assumes increased emission costs and stringent environmental policy requirements.

Sensitivities were developed to observe the impact of changes to certain assumptions in selected scenarios. The BAU Scenario has five sensitivities including variants on natural gas prices, plant retirements, expanded connectivity with neighboring grids, and renewal of the production tax credit for wind. The Environmental Scenario has two sensitivities; one assumes an expanded renewable portfolio standard is in effect for the State of Texas, the other assumes a technology specific mandate to expand demand response.

A matrix detailing the specifics of scenarios and their associated sensitivities can be found at the [Long Term Study](#) website. Stay tuned- resource builds for subsequent scenarios are underway!

## KEY LTS MEETING DATES:

4/13\*: Joint  
RPG / LTS

4/11: WMS

3/27: ETWG

3/30: DSWG

\*LTS Materials: To be Posted on 4/6 for the 4/13 meeting

# BAU Results

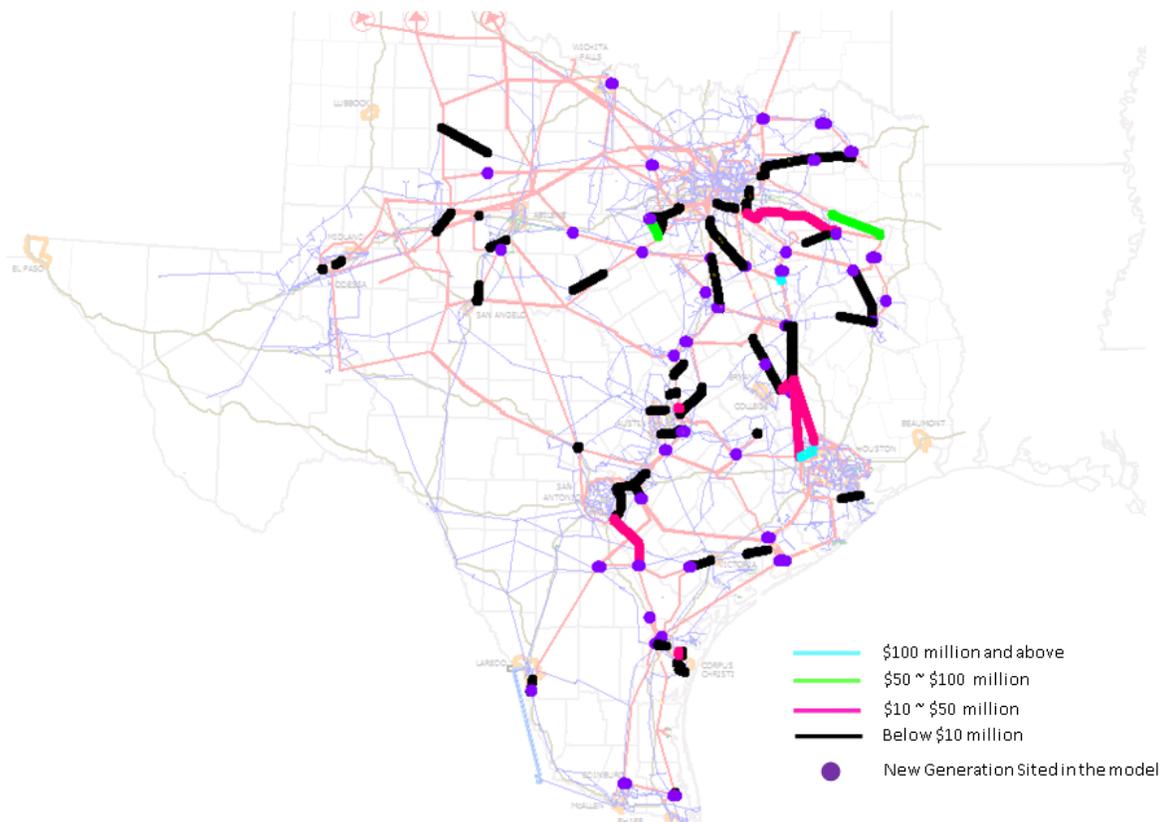
The transmission results from the Business as Usual Scenario will be presented on April 13<sup>th</sup>, 2012.

The transmission system assessment for the Business As Usual (BAU) Scenario, characterized by a continuation of current market conditions, is complete. ERCOT has presented potential resource expansions based on this scenario at previous Long-Term Study Task Force (LTSTF) meetings. The transmission needs for this scenario will be presented at the April LTS/RPG meeting.

The previously presented generation expansion results for this scenario (gas-fired combustion turbines and combined cycles) were studied to identify complementary system upgrades. At the next LTS meeting, ERCOT will present these findings, as well as future studies and lessons learned thus far.

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High Level Congestion Cost Map of 2030 Base Model with 9000 MVA Ratings inside Cities (i.e. Dallas, Houston, San Antonio)



# 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			

## UPDATED WIND PROFILES TO BE INCLUDED IN LTS

LTS has contracted with AWS TrueWind to provide updated wind profiles to simulate hypothetical new wind site generation availability. Utilizing 15 years of historical meteorological and correlated load data, AWS will provide ERCOT with updated, more complete wind profiles for inclusion in the Long Term Study.



## Request for Proposals: Assessment of adequacy of resource builds to maintain current reliability rules, Due 3/23

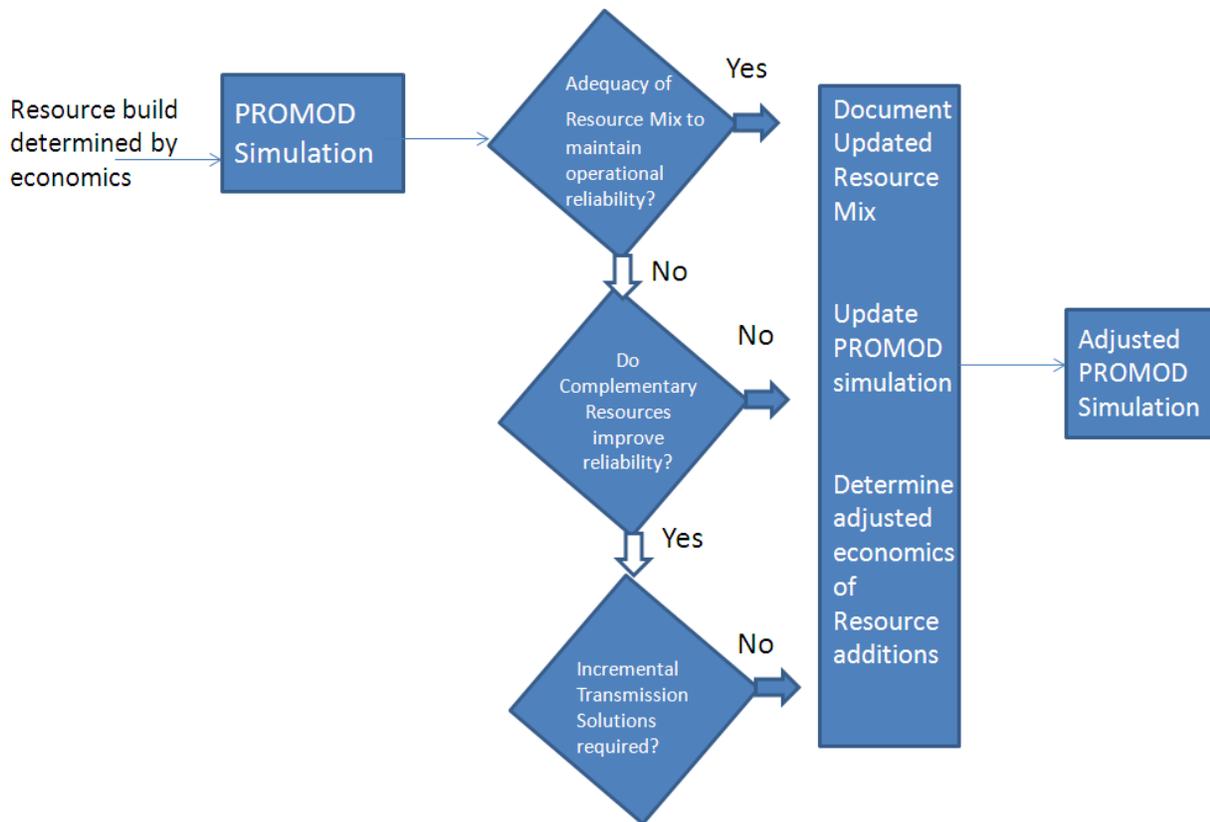
ERCOT is seeking a tool or tools to determine the ability of a resource build to maintain system frequency, balance, and other reliability rules as currently written.

Under certain scenario assumptions, the resource build may shift from traditional, thermal / dispatchable resources to include emerging or expanding non thermal resources. This tool should help ERCOT assess the complementary system needs to reliably integrate these technologies and demonstrate, via simulation, that the resultant build will satisfy system reliability metrics.

A flowchart (next page), depicting how this tool may interface with our existing long term planning processes. ERCOT encourages interested providers to submit proposals by March 23<sup>rd</sup>, 2012.

The full text of the RFP can be found at:

<http://www.ercot.com/about/procurement/rfp/index>



*Anticipated process to update resource builds based on reliability requirements*

### *Transmission BAU results (Continued from Page 2)*

The completion of the transmission results for the BAU scenario mark a significant milestone for the long-term study. Completion of this scenario represents the development and execution of the refined long-term study process. Long-term Planning has traditionally focused on a ten-year planning horizon. Extending the study horizon to twenty years brought on new challenges:

- Refinement of the Transmission System Simplification Criteria
- Development of suitable study cases for years 2020-2030
- Production cost modeling of the ERCOT system with incremental energy resources
- Development of procedures to identify, validate, and remediate transmission congestion
- Development of system solutions of interconnection-level significance at voltages up to 500kV
- Refine conceptual projects with the incumbent transmission providers

At the next LTS Meeting, ERCOT will present the results of the PROMOD production cost results, as well as the system solutions designed to improve the efficiency of the ERCOT system. This study is a first of kind for ERCOT - We hope that you may attend so that we may incorporate your feedback and suggestions into future scenarios.

## Key Contact Information

### *Communication*

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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