

## ERCOT Target Reserve Margin Analysis

**Prepared for:**  
Electric Reliability Counsel of  
Texas (ERCOT)

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**Global Energy** Decisions

much of that wind capacity can be included in reserve margin calculation is imperative for resource planning purposes.

Global Energy's MARKETSYS, a stochastic system dispatch model, was used to determine the ELCC of wind capacity and the LOLP and EUE at various levels of reserve margin for ERCOT in 2008. As a result of this study, Global Energy concluded that the ELCC of wind capacity is 8.7 percent of its nameplate capacity for reserve margin calculations. Global Energy then used this to calculate ERCOT reserve margins and develop the LOLP and EUE for the ERCOT region in 2008 using two different resource build-outs: one with gas turbines and one with coal steam turbines. Global Energy concludes that under the resource build-out scenario using only gas turbines that a 12.9 percent reserve margin yields a 1 day in 10 year Loss of Load Event (LOLE). Under the resource build-out scenario using coal steam turbines, Global Energy concludes that a 13.6 percent reserve margin yields a 1 day in 10 LOLE. The complete results of the LOLP and EUE analysis can be found in Section 3 of this report.