

## Resource Adequacy in ERCOT

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I have included for your review after my presentation slides a recent study completed by the Brattle Group at the request of the Public Utility Commission of Texas (PUC). This report is filed on the PUC web-site in Docket No. 40000<sup>1</sup>. Two additional documents describe the most recent discussions regarding resource adequacy at the Commission, specifically the review of the reliability standard for the region (Docket No. 42302). Previous resource adequacy studies in ERCOT have focused on reserve levels that would provide an expectation of one loss-of-load event every 10 years due to system-wide resource inadequacy. The Brattle Study included here describes other possible reliability standards, and the two additional documents describe the process currently underway at the Commission to review these various methods.

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[http://interchange.puc.texas.gov/WebApp/Interchange/application/dbapps/filings/pgSearch\\_Results.asp?TXT\\_CNTR\\_NO=40000&TXT\\_ITEM\\_NO=649](http://interchange.puc.texas.gov/WebApp/Interchange/application/dbapps/filings/pgSearch_Results.asp?TXT_CNTR_NO=40000&TXT_ITEM_NO=649)



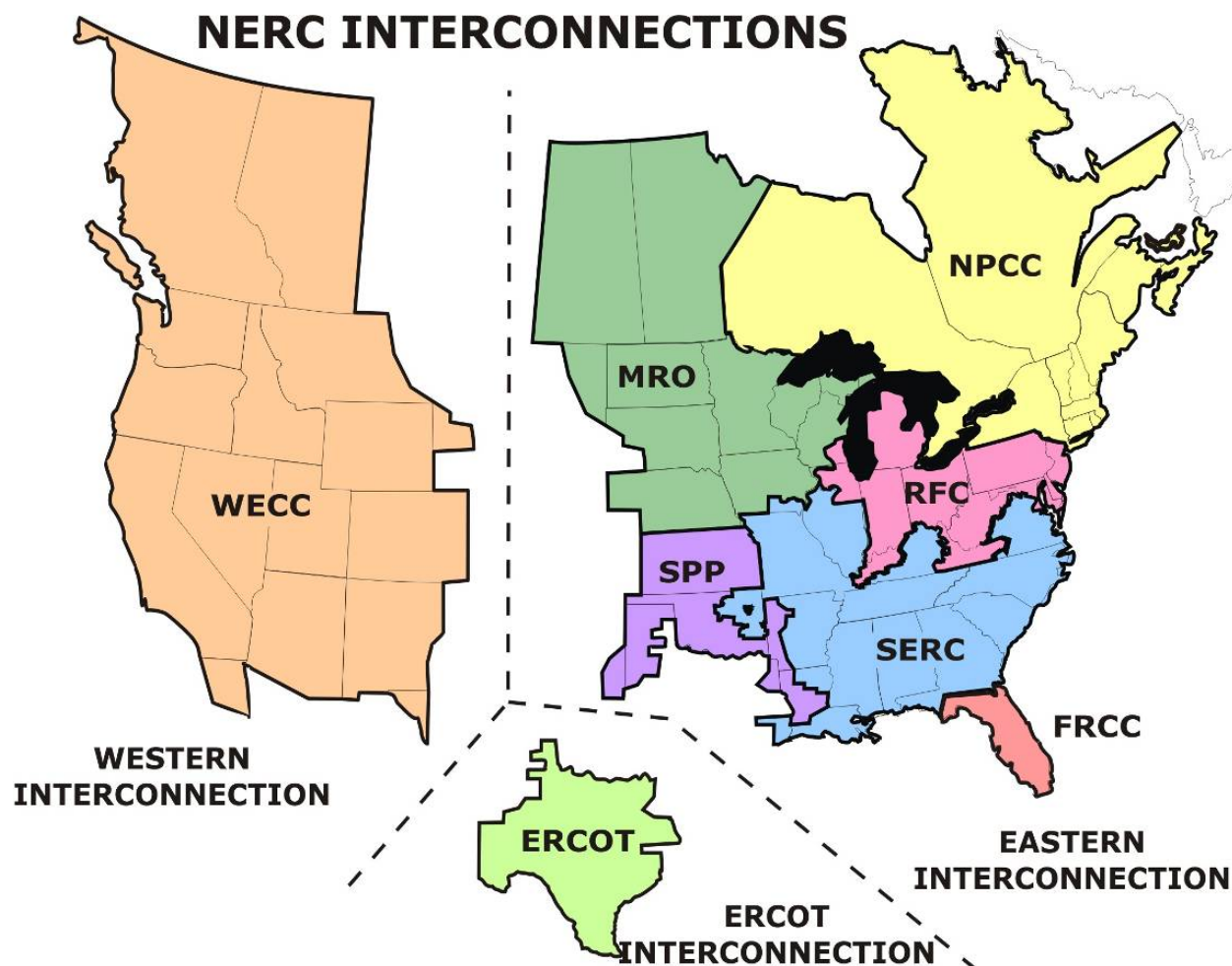
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# The ERCOT Region



**The ERCOT Region is one of 3 interconnections in North America.**

**The ERCOT grid:**

- 75% of Texas land
- 85% of Texas load
- 38,000 miles of transmission lines
- 550+ generation units
- 68,305 MW peak demand (set 8/3/2011)

**Regional Import Capacity: 1,256 MW of Asynchronous Tie Capacity (820 MW with Eastern Interconnection)**

# Current System Records

## Peak Demand Record: 68,305 megawatts (MW)

- 68,305 MW, August 3, 2011

## Weekend Record

- 65,159 MW, Sunday, August 28, 2011

## Winter Peak Record: 57,265 MW

- 57,265 MW, February 10, 2011

## Wind Generation Records (instantaneous)

- 10,296 MW, March 26, 2014, 8:48 p.m.
  - Non-Coastal Wind Output = 8,863 MW
  - Coastal Wind Output = 1,433 MW
  - Supplying 28.78% of the 35,768 MW Load
  - Installed Commercial Capacity = 11,055 MW
- 39.40% Wind Penetration, March 31, 2014, 2:12 a.m.
  - Total Wind Output = 9,699 MW
  - Total Load = 24,618 MW

## 2013-2014 Winter Demand

Record monthly peak demand in November, December, January and March, due primarily to extremely cold and often windy weather conditions.

- The March peak was about 11,500 MW higher than the previous March record.
- Energy use during each of the winter months exceeded previous levels, even 2011

## Summer 2013 Demand

- 64,418 MW, June 27
- 64,814 MW, July 31
- 67,245 MW, August 7
- 63,388 MW, September 3
- No new records

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Title search: Resource Adequacy in ERCOT

Also available as part of the eCourse

[Gas and Power: Resource Adequacy, Electric Transmission Planning, What's Happening in SPP, plus History of the Gas Day](#)

First appeared as part of the conference materials for the  
13<sup>th</sup> Annual Gas and Power Institute session  
"Resource Adequacy Panel"