Implementation of the Proposed Clean Power Plan Regulations in ERCOT

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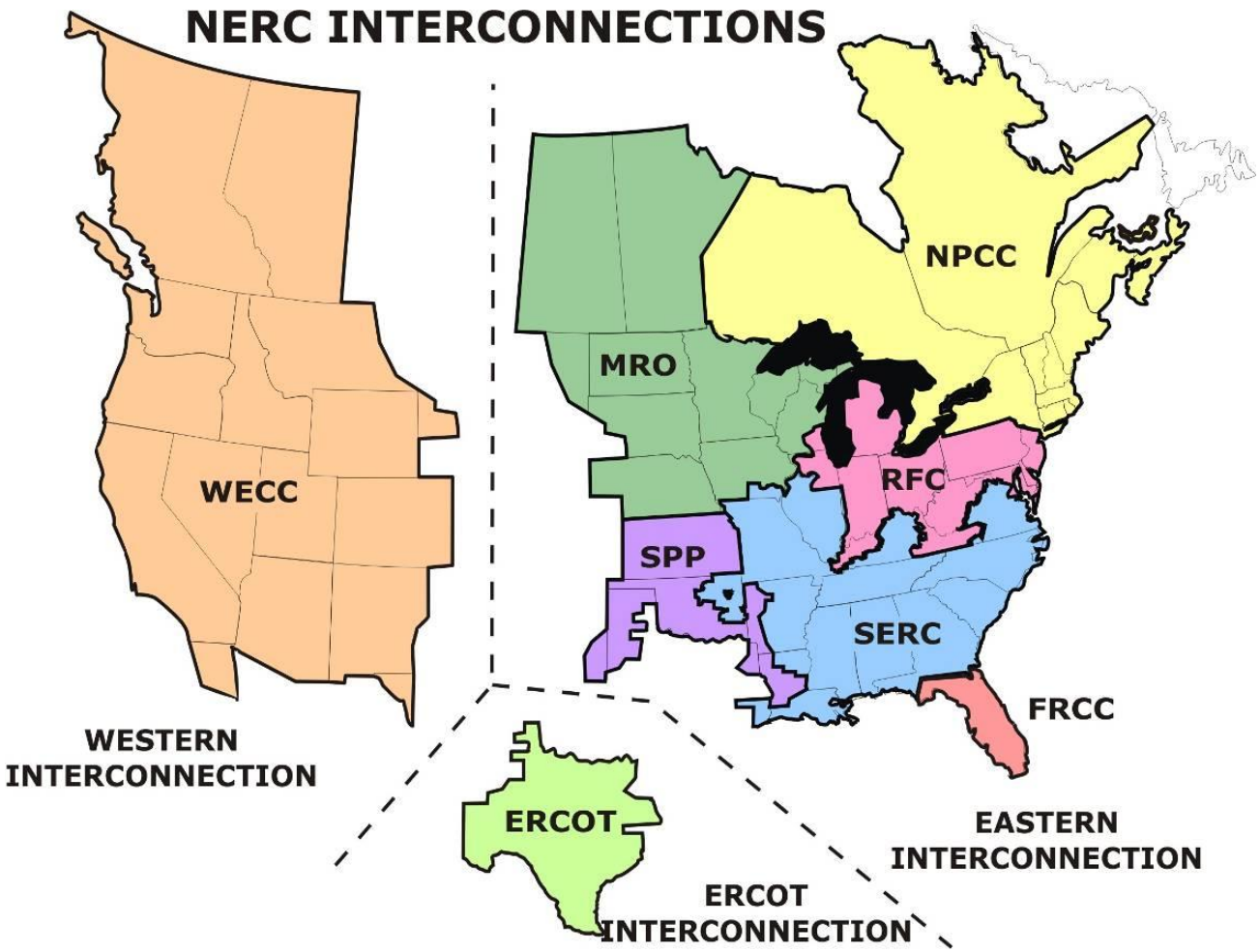
The ERCOT Region



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)

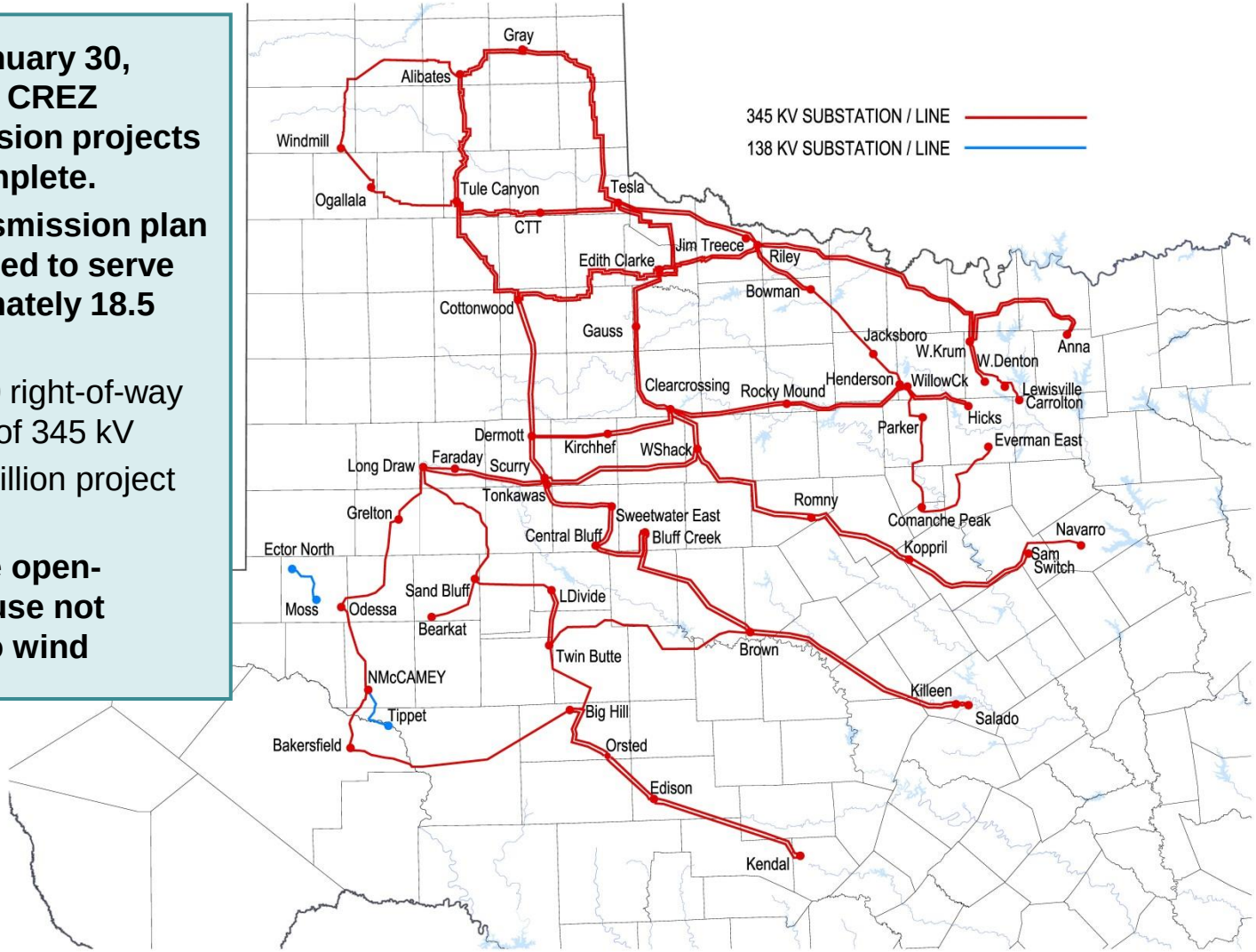
What Does ERCOT, Inc. DO?

The Electric Reliability Council of Texas (ERCOT) manages the flow of electric power on the transmission system. We are responsible for the reliability and adequacy of the transmission grid.

ERCOT also performs financial settlement for the competitive wholesale bulk-power market and administers retail switching for 6.7 million premises in competitive choice areas.

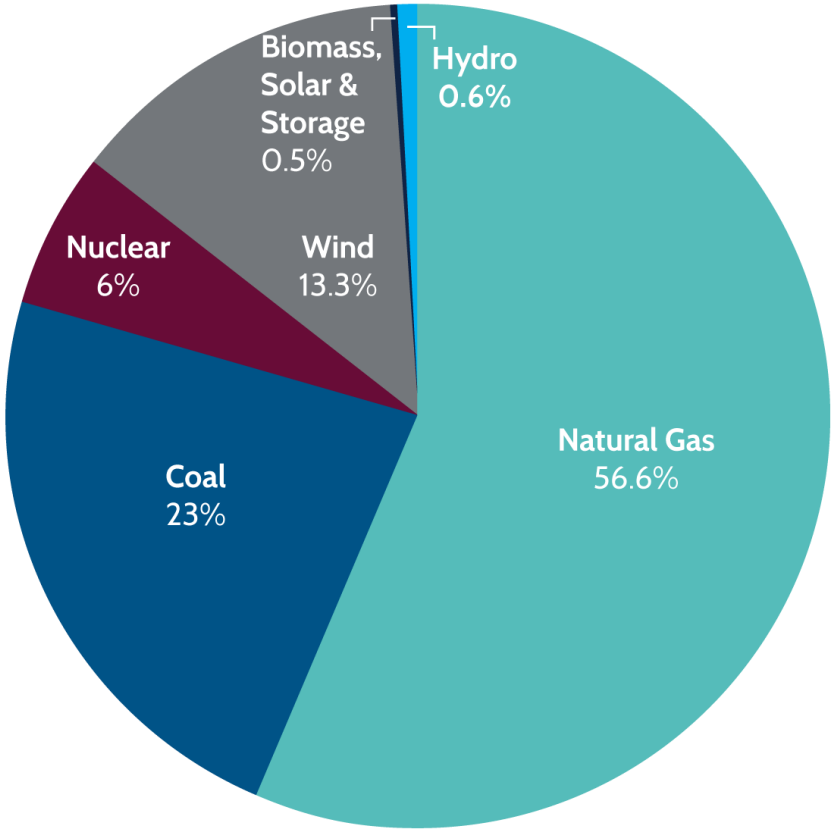
CREZ Transmission Update – January 30, 2014

- **As of January 30, 2014, the CREZ transmission projects were complete.**
- **The transmission plan is designed to serve approximately 18.5 GW:**
  - ~3600 right-of-way miles of 345 kV
  - $6.9 billion project cost
- **Lines are open-access; use not limited to wind**

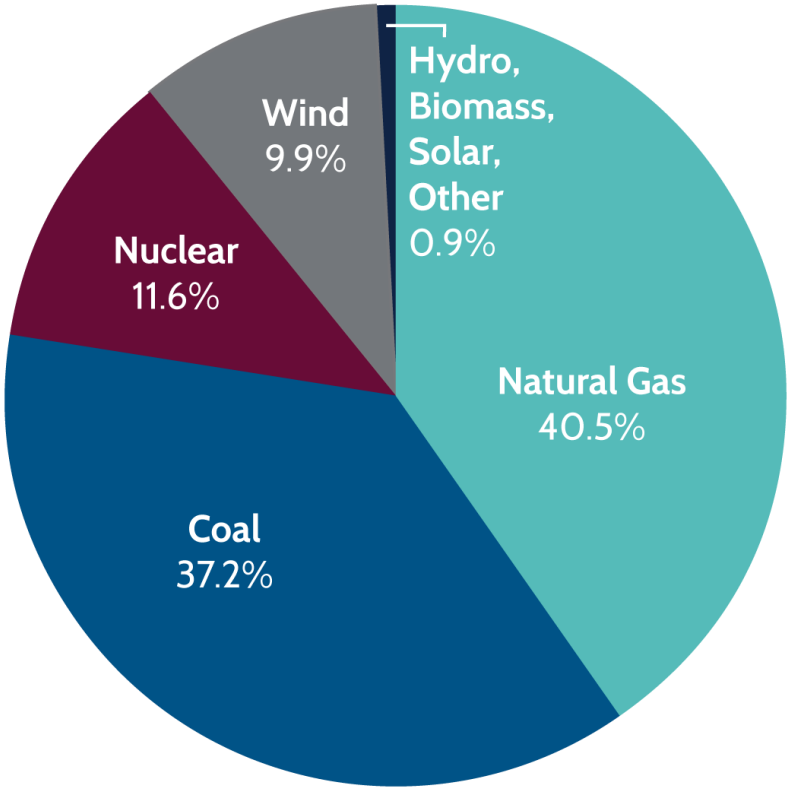


Project details available at: http://www.texascrezprojects.com/quarterly_reports.aspx

ERCOT Region Generation



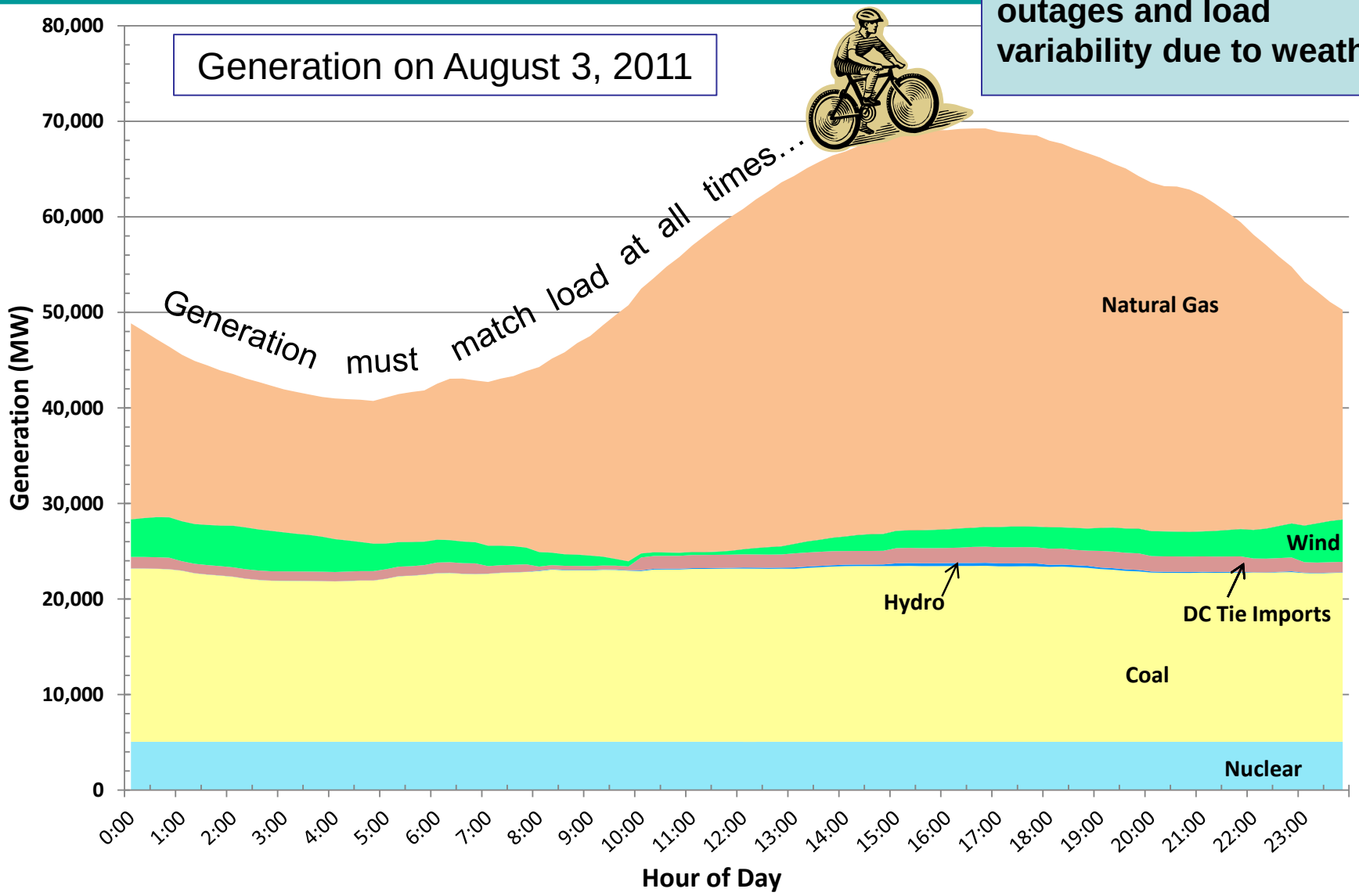
2014 Generation Capacity
effective May 2014



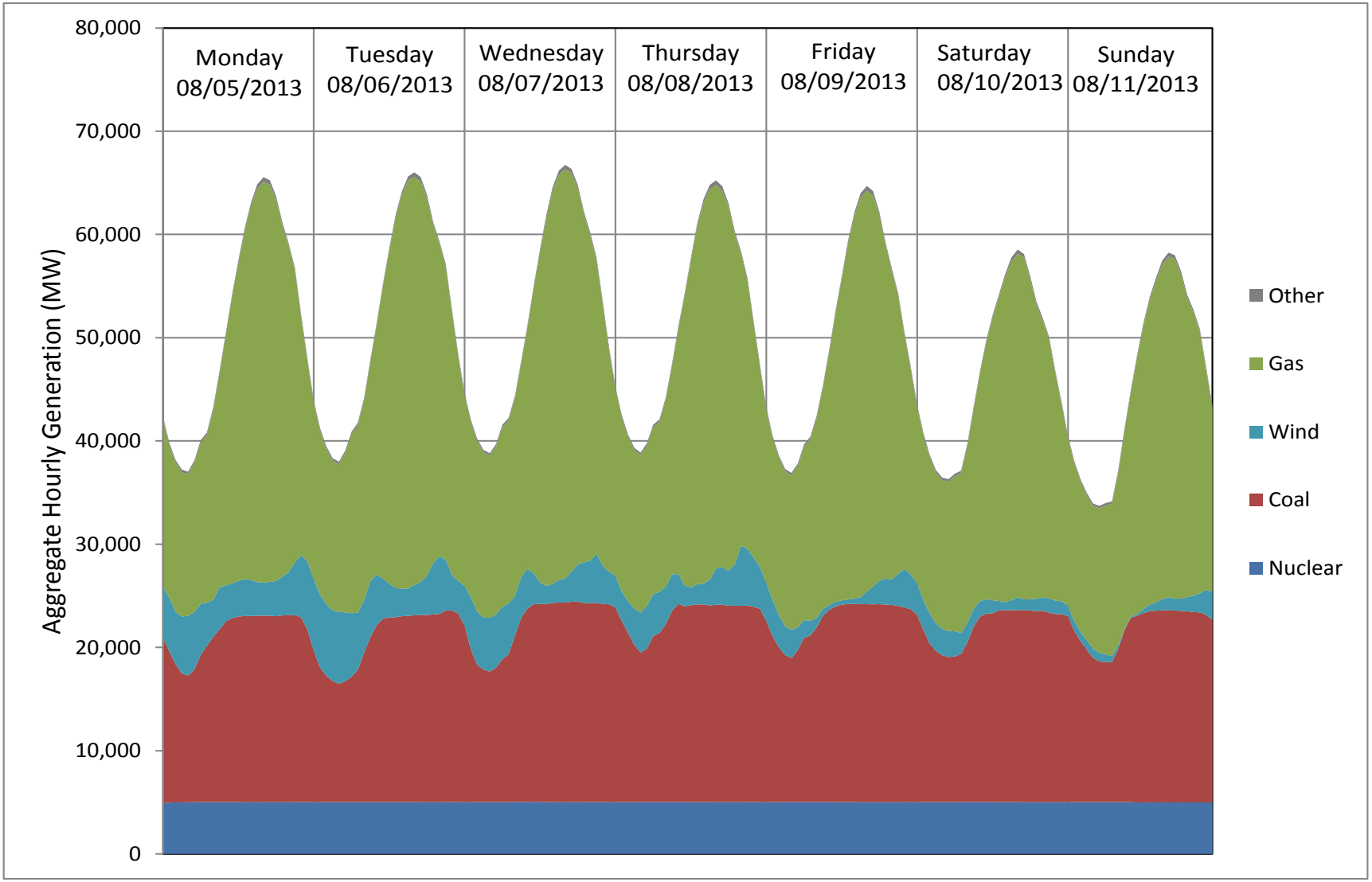
Energy Use 2013*
*Totals >100% due to rounding

Record Peak Day Generation Output

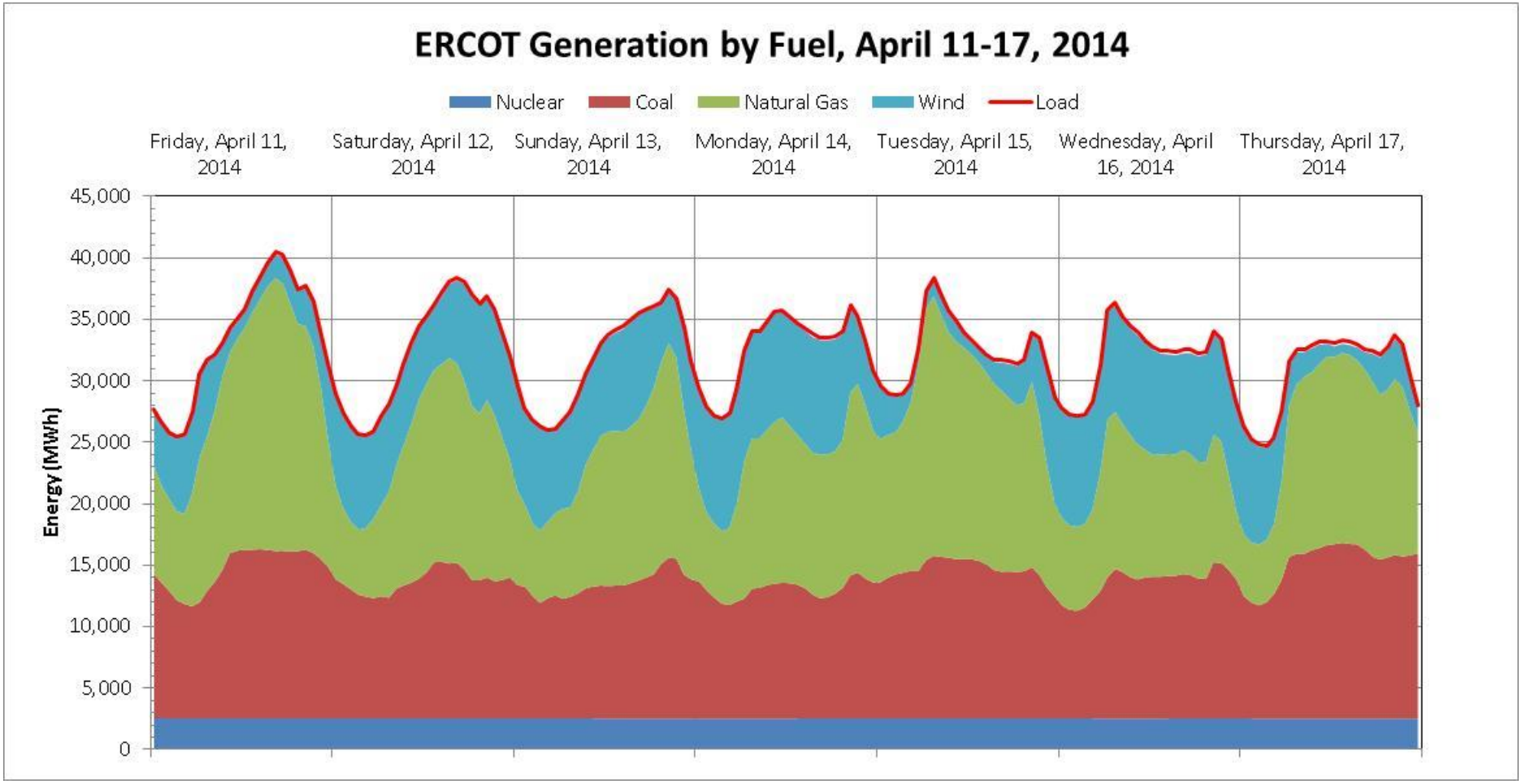
Generation reserves are necessary due to unit outages and load variability due to weather



August 2013 Generation Output



Typical April Generation Output



Clean Power Plan Proposal

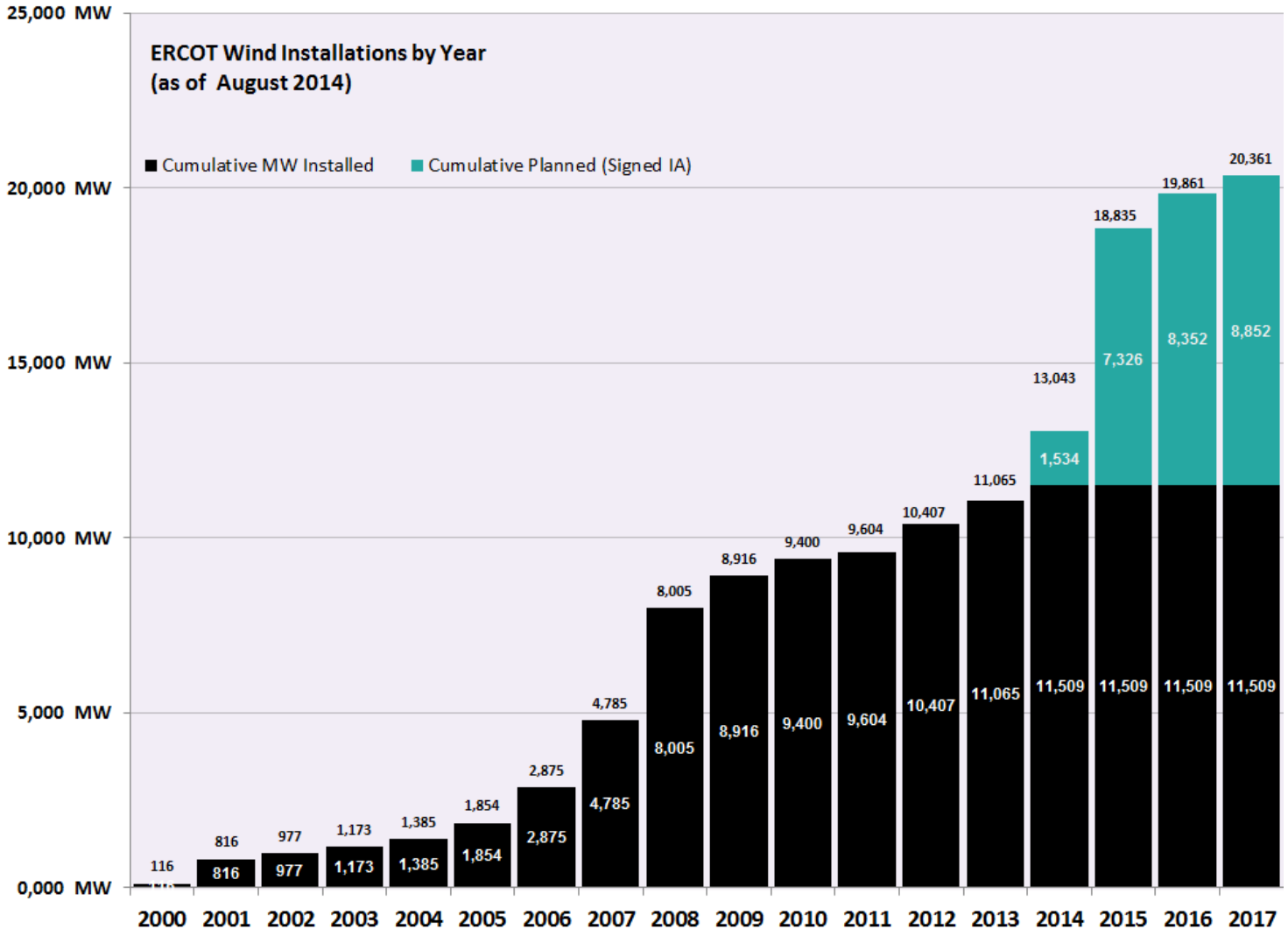
- The EPA's proposed state goals are based on four possible strategies for reducing carbon dioxide emissions.
  - Increase resource efficiency
  - Increase output from natural gas resources
  - Increase generation from renewable resources and maintain nuclear output
  - Expand energy efficiency programs
- At a high level, a successful implementation plan will include a combination of measures that reduce carbon dioxide emissions from the generating fleet and decrease the growth of future energy demand.

Generation Development in ERCOT

Current ERCOT interconnection queue:

Fuel Type	Initial Screening Study Projects (MW)	Full Interconnection Study Projects (MW)	Completed Projects (MW)	Total (MW)
Natural Gas	9,517	16,252	6,792	32,561
Coal	0	0	270	270
Wind	2,875	13,650	8,852	25,377
Solar	588	3,208	265	4,061
Storage	0	594	0	594
Total	12,980	33,704	16,179	62,863

Wind Generation Development in ERCOT



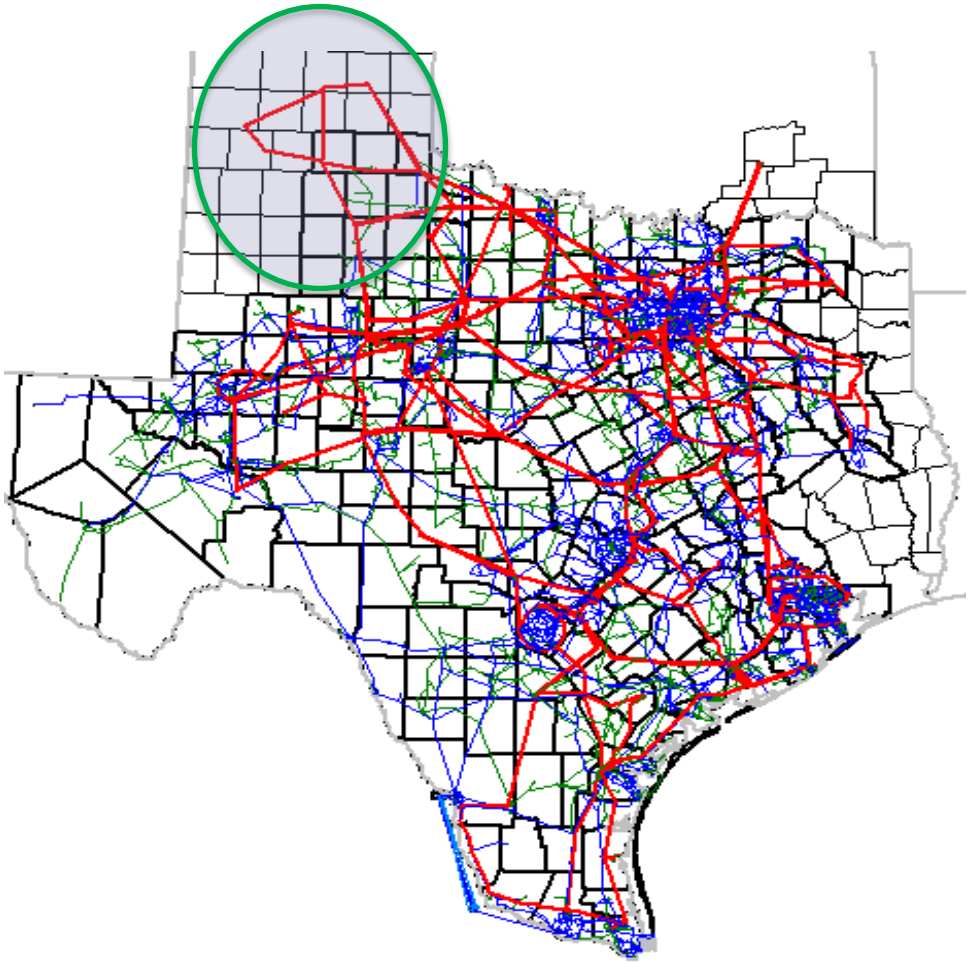
Current ERCOT Wind Generation Records

10,296 MW, on March 26, 2014, at 8:48 p.m.
- Non-Coastal Wind Output = 8,863 MW
- Coastal Wind Output = 1,433 MW
- Wind gen. supplied 28.78% of the 35,768 MW Load

39.40% Wind Penetration, on March 31, 2014, at 2:12 a.m.
- Total Wind Output = 9,699 MW
- Total Load = 24,618 MW

Wind Integration in the ERCOT Panhandle

- Minimal nearby synchronous generation in the Panhandle region
- No local load
- These conditions lead to voltage stability and grid strength challenges
- Current wind generation development:
  - >3.1 GW of wind capacity in the Panhandle currently in transmission planning models
  - >5.5 GW of wind generation with signed interconnection agreements



Questions?