



Item 5.1: 2017 Summer Operations

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Board of Directors Meeting

ERCOT Public

June 13, 2017

Summer 2017 Resource Adequacy Outlook

Summer 2017	Forecasted Season Peak Load ¹	Forecasted Season Peak Load / Extreme Generation Outages ²	Forecasted Season Peak Load / Low Wind Output ³	Extreme Peak Load ⁴ / Typical Generation Outages
Total Resources (as of April 25)	81,860			
Peak Load	72,934 ¹			
Uses of Reserve Capacity	3,420	5,294	6,455	7,113
Capacity Available for Operating Reserves	5,506	3,632	2,471	1,813

¹ Based on normal weather from 2002-2015

² Based on typical generation outages (average historical planned and forced outages during peak hours for June-September weekdays, starting in 2012), plus additional forced outages at 90th percentile

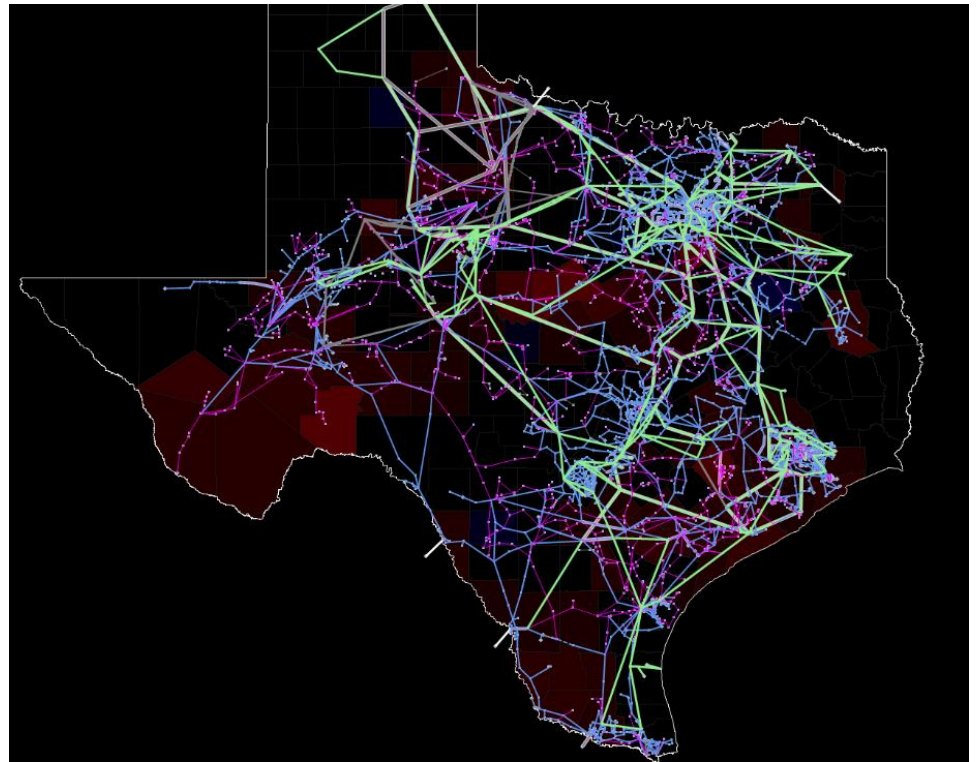
³ Based on 10th percentile of wind output during 100 highest Net Load hours for the 2013-2016 Summer seasons

⁴ Based on 2011 weather



Summer 2017 Transmission Outlook

- No expected wide-area reliability concerns this year, barring significant outages
- May experience congestion in some areas
 - Panhandle
 - Houston
 - Localized areas of West Texas



Operational Changes for Summer 2017

- Physical Responsive Reserve (PRC) Changes
 - Include all capacity from Load Resources triggered by UFR (NPRR 801)
 - Include capacity from curtailed wind farms that are capable of providing frequency response (NPRR 573)
- Removed discount factor for unit capacities from Responsive Reserve procurement
- Declare EEA-3 at PRC of 1,375 MW but maintain load-shed trigger at 1,000 MW (NPRR 824)
- Reliability Unit Commitment buyback up to operating hour (NPRR 744)
- Implemented Reliability Risk Desk
- Added operational analyses to improve Valley import limit



Grid Conditions

Normal Conditions

- Sufficient generation, all is well

Conservation Alert

- Potentially tight operating reserves — generation/demand
- Don't issue routinely just because hot or cold

Power Watch Conservation Needed

- Energy Emergency Alert (EEA) 1
- Operating reserves <2,300 MW but >1,750 MW
- First stage demand response programs

Power Warning Conservation Critical Risk of Rotating Outages

- EEA 2 and EEA3 with Operating reserves <1,750 MW but >1,000 MW*
- Load resources, Emergency Response Service

Power Emergency Rotating Outages in Progress Conservation Critical

- EEA 3 with Operating reserves <1,000 MW*
- Direct transmission providers to begin rotating outages to reduce demand on system.

* Note: EEA 2 and EEA 3 also have frequency triggers; EEAs might not be called if conditions are expected to recover within 30 minutes.



Questions?

