



Gas-Electric Coordination Working Group Meeting

Chad Thompson
Senior Manager, Operations Support &
Engineering

February 15, 2019

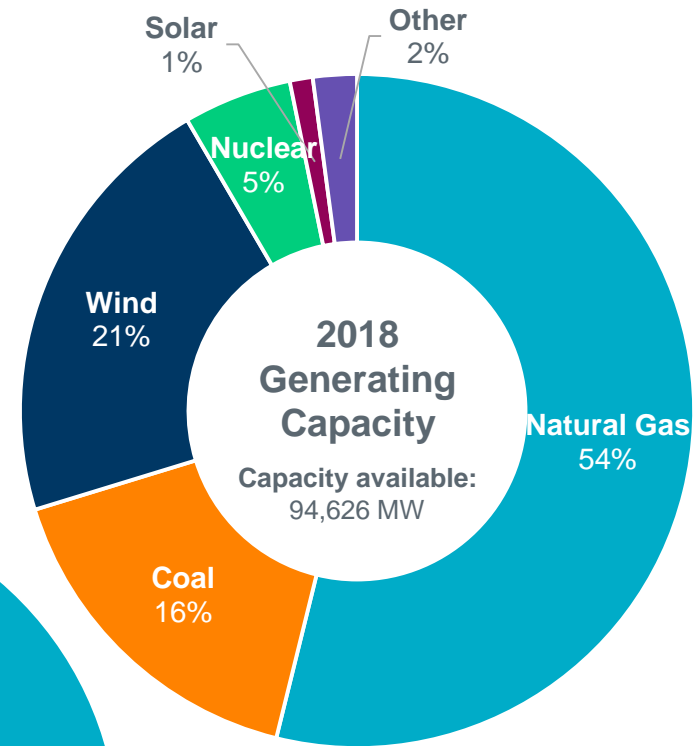
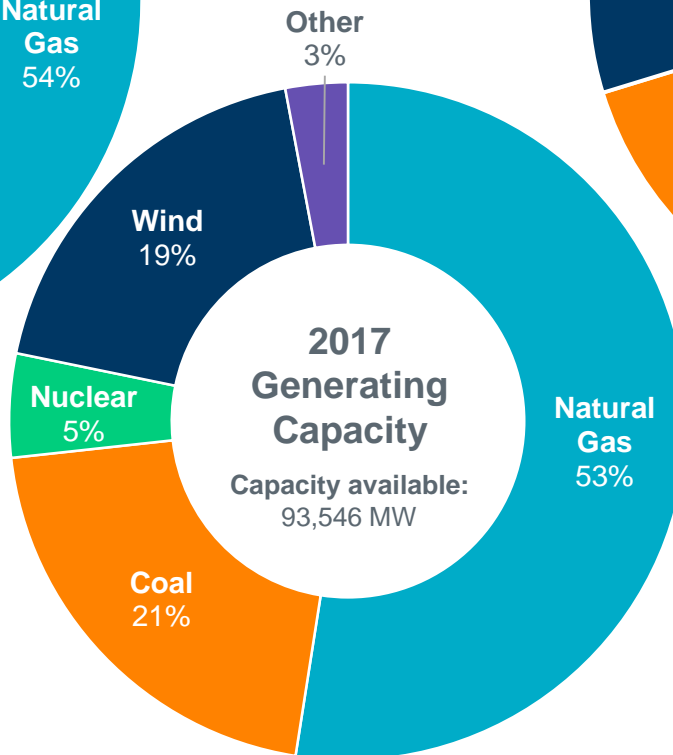
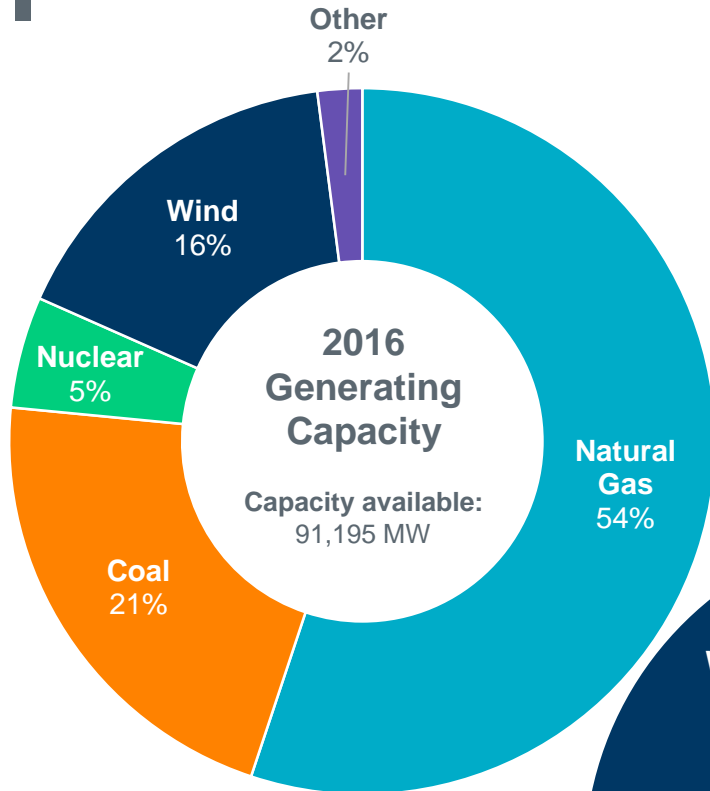
Agenda Review

- Antitrust Admonition
- GEWG Vice-Chair Nominations
- Background & ERCOT Summer Outlook
- GEWG Charter Discussion
- Gas-Generator Coordination Document
- Gas-Electric Load Coordination Process
- NDA & Distribution List
- Adjourn

GEWG Vice Chair Nominations

Background & ERCOT Summer Outlook

Installed Generating Capacity in ERCOT



- Summer generation capacity information provided by December CDR Reports for 2015, 2016 and 2017.
- Reflects operational installed capacity — excludes units designated as indefinitely mothballed or under extended outage, and accounts for rating changes reported by resource owners.
- Other category includes hydro, biomass-fired units and DC ties.

Natural Gas & the ERCOT Region

- Increased focus on electric/gas coordination at Federal and State level
- Situation in Texas
 - Large gas infrastructure
 - Significant intrastate facilities
 - Different electric market
- Significant coordination issues arose last summer that the Chairman of the PUC has highlighted
- Enhanced focus on electric-gas coordination is helpful for reliability

2018 PUC & RRC Joint Memo

- Establish communication channels in advance of potential issues with gas-electric coordination
- Education on available public information



CHRISTI CRADDICK
CHAIRMAN



DEANN T. WALKER
CHAIRMAN

June 25, 2018

BE ADVISED:

As Texas enters the hottest days of the summer, we can expect demand on our state's electric grid to climb steadily with the temperature. Through recent discussions between our offices, we have identified a potential threat to our state's ability to meet overall electricity demand during peak months. Specifically, we have been made aware of possible fuel supply interruptions for a number of vital natural gas power plants due to scheduled maintenance on pipelines. We want to ensure that we have the pipeline transmission capacity to deliver the natural gas that fuels electric service for Texans during peak demand months this summer.

Pipeline safety and reliable electric service are some of the most important responsibilities of the Railroad Commission and Public Utility Commission, respectively. When integrity testing of gas transmission pipelines can be scheduled to take place outside peak electric generation months, without safety risk, we encourage you to take this approach to protect citizens from losing their air conditioning, fans, and lights during the hot Texas summer.

Gas-fueled generation plays a key role in maintaining a reliable supply of electricity across the ERCOT grid. Electric generation operators should optimize their performance, especially when their power is most needed, through careful planning and close collaboration with their vendors, including fuel suppliers. As our reduced reserve margins are put to the test this summer, we continue to encourage electric generation operators to ensure the plants' ongoing readiness.

Therefore, we are asking gas transmission pipeline operators and electric generation operators to coordinate scheduling integrity testing of pipelines outside of the peak electric generation months to protect against the need for electric power curtailments as we already do in the winter. The Railroad Commission's Oversight and Safety Division and the Infrastructure and Reliability Division of the Public Utility Commission are monitoring the situation and are ready to assist in meeting natural gas supply and transmission needs for electric generators.

Please do not hesitate to contact our offices, Kari French, Director of the Railroad Commission's Oversight and Safety Division, or Keith Rogas, Director of the Public Utility Commission's Infrastructure and Reliability Division with any questions.

Sincerely,

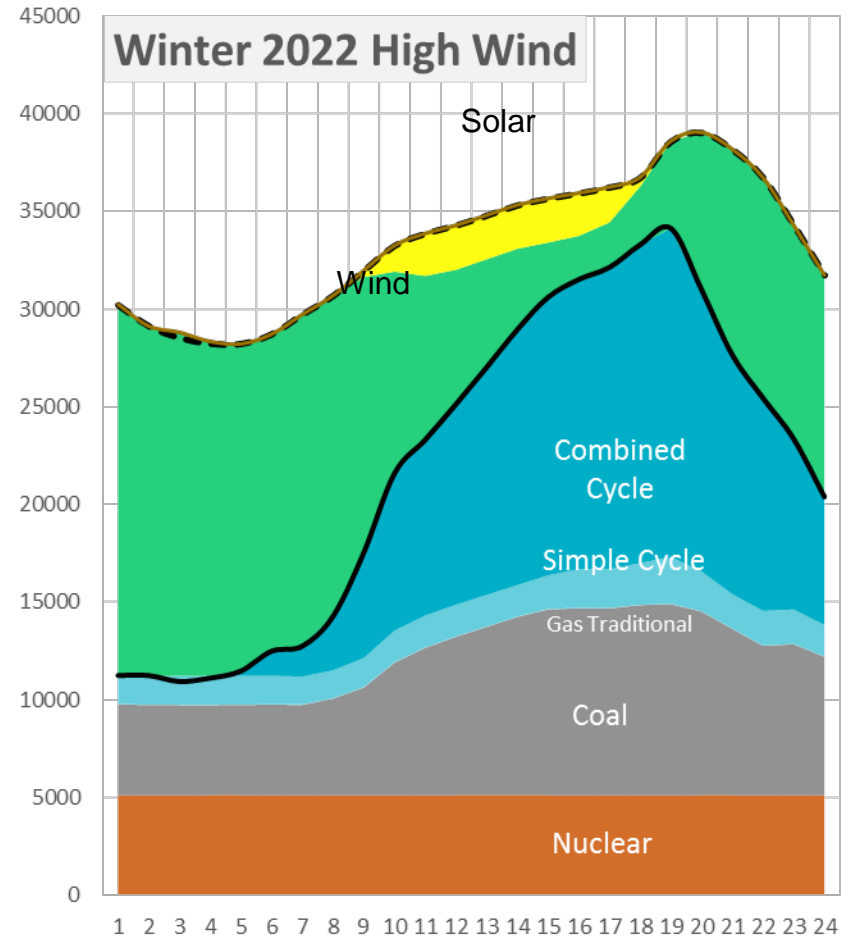
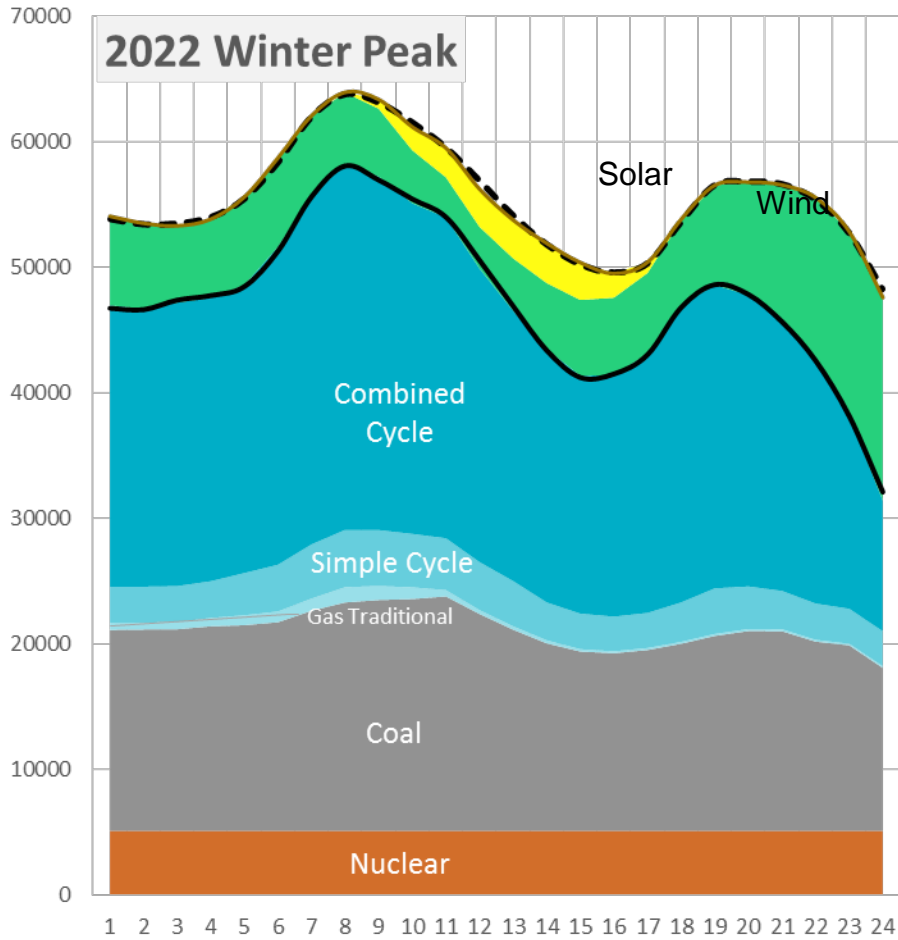
Christi Craddick
Chairman, Railroad Commission of Texas

DeAnn Walker
Chairman, Public Utility Commission of Texas

ERCOT Summer Outlook & Preparations

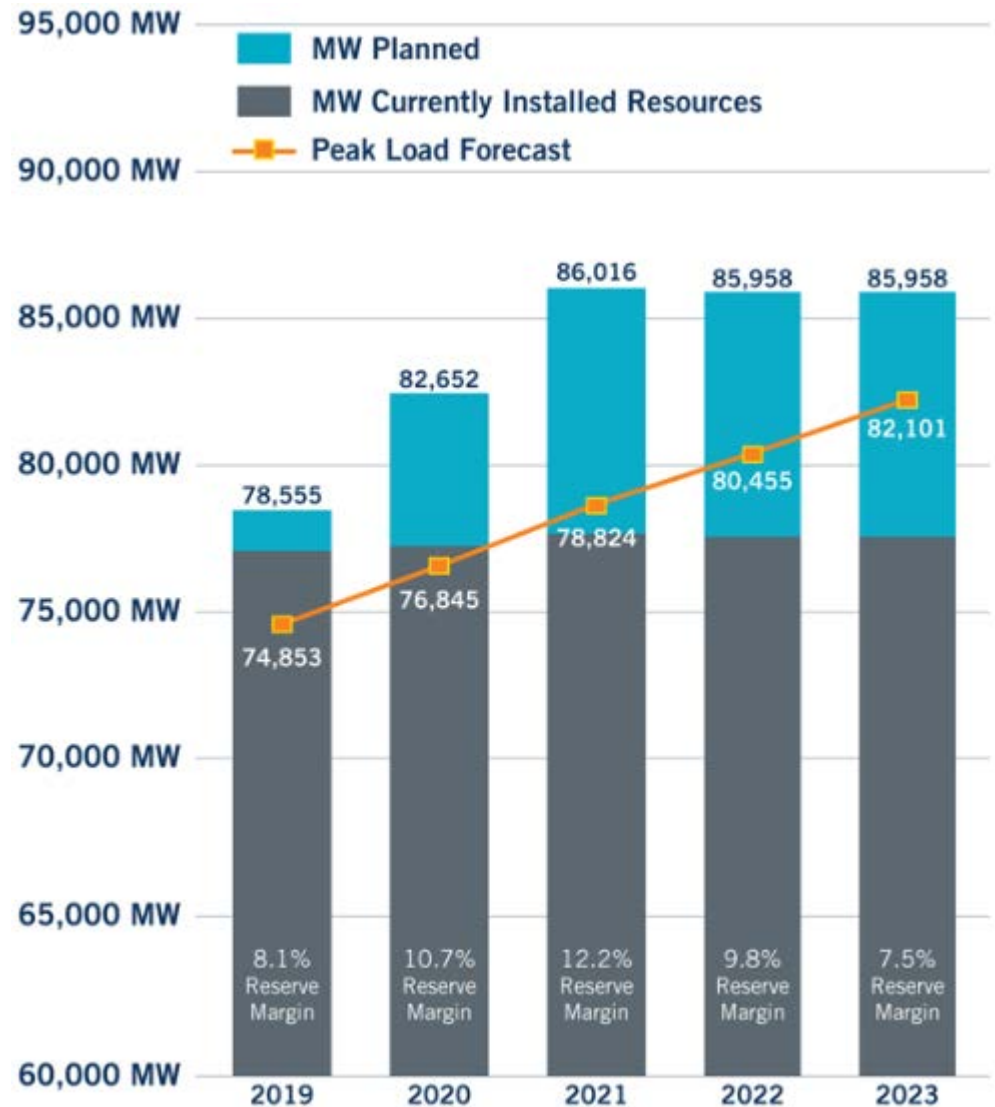
- Transmission Outage Restrictions - Jan 21
ERCOT Market Notice
 - More scrutiny on planned electric transmission Outages
 - Transmission Outages limited to off-peak periods
 - Shortened restoration times
 - Limited bus Outages
 - Some exceptions granted, where appropriate

Winter Profiles 2022



Reserve Margin

- December CDR: 8.1% Reserve Margin
 - <http://www.ercot.com/news/releases/show/168033>
 - Now 7.4%
- Expected Peak: 74,853 MW (~1.8% growth)



ERCOT Summer Outlook & Preparations

- What can I do?
 - Generators – early maintenance
 - TDSPs – focus big projects after peak periods or move to the fall/spring
 - Pipelines – schedule maintenance outside peak consumption periods (1300-2000) where possible

GEWG Scope Includes

- Excluding certain gas facilities needed for electric generation in rotating outage plans
- Facilitating Gas-Generator direct ties; avoiding ERCOT “getting in the middle”
- Continued improvement of BlackStart gas coordination
- Other discussions as appropriate

Gas-Generator Coordination Document

Gas-Electric Load Coordination Process

NDA & Distribution List

NDA & Distribution List

- NDA
 - ERCOT Legal to take first stab at an NDA for the GEWG
- Distribution List
 - GEWG@lists.ercot.com
 - Start providing material through that list; may parse down after NDA is reconciled