



2022 NARUC Annual Meeting and Education Conference

**CONNECTING THE DOTS**

Innovative/Disruptive Technology and Regulation

# Subcommittee and Staff Subcommittee on Clean Coal and Carbon Management

*2:45 – 3:45 pm CT*

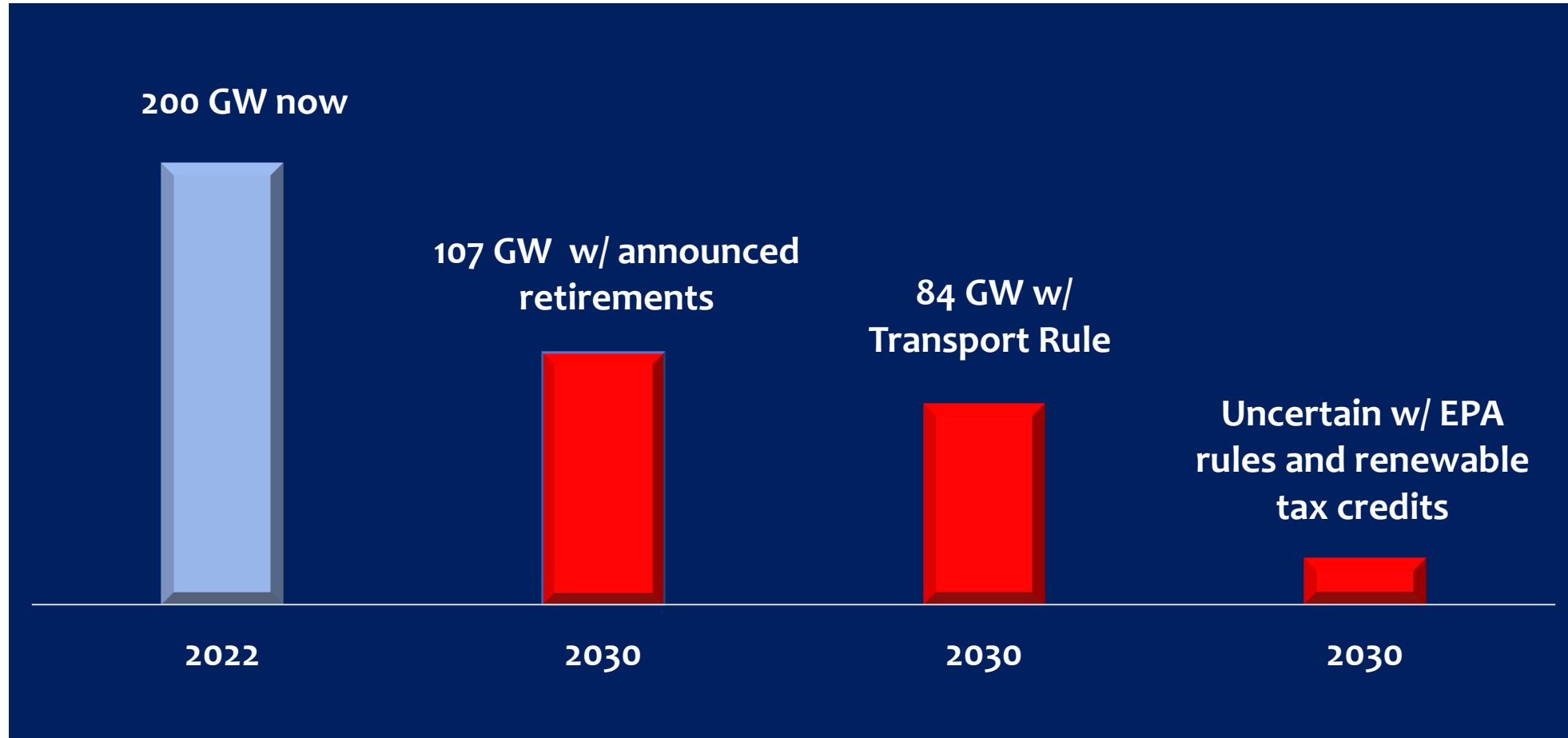
***“We’re headed for a reliability crisis.”***

**FERC Commissioner Mark Christie**

**NARUC Subcommittee on Clean Coal and Carbon Management**

**November 13, 2022**

## U.S. coal fleet now and in 2030



# EPA rules will cause more coal retirements, especially during 2026-2028

- EPA is implementing or will implement the following over the next 2+ years:
  - Coal combustion residuals (CCR) rule
  - Cross-State Air Pollution Rule (Ozone Transport Rule)
  - Regional haze rule
  - Effluent limitations guidelines (ELG) rule (current and revised)
  - ACE replacement rule
  - More stringent MATS (mercury) rule
  - More stringent ozone standard
  - More stringent PM<sub>2.5</sub> standard
- 92,000 MW of coal generation is at risk of having to install more emission controls for NO<sub>x</sub> and SO<sub>2</sub>. This at-risk coal capacity does not include CCR, ELG, or changes to air quality standards.
- The cost of SO<sub>2</sub> and NO<sub>x</sub> controls will accelerate coal retirements.
- Based on EPA's likely implementation schedule, we estimate the collective impact of these rules will cause coal retirements to increase sharply in the 2026-2028 timeframe.



# Recommendations at the FERC Reliability Technical Conference

NERC, FERC, EPA and others can take steps to avoid increasing reliability risks.

- NERC should assess the reliability impacts of a realistic number of future coal retirements.
- NERC should designate EPA rules as an “emerging issue” to bring more consideration to the reliability implications of these rules.
- RTOs should accelerate the designation of specific reliability attributes and ensure those attributes are properly valued by electricity markets.
- Federal agencies should conduct formal reliability assessments for rules and policies that could adversely impact grid reliability.
- FERC should direct RTOs to determine whether RMR/SSR Agreements can be effective in preventing reliability problems caused by widespread coal retirements.
- EPA should pay careful attention to the reliability concerns of FERC, NERC, and grid operators, defer to states about how to implement these rules, and make these rules as flexible as possible and not prescriptive.



## Reliability attributes

MISO has proposed six reliability attributes as being critical to the future grid. The coal fleet is a “strong provider” of five out of six.

- Availability (capacity)
- Fuel assurance (energy adequacy)
- Long duration energy at high output (energy adequacy)
- Ramp up capability (flexibility)
- *Rapid startup (flexibility)*
- Voltage stability (one of three essential reliability services)





# DEPENDABLE POWER **FIRST**

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