



Item 7: Update on EPA Regulations Impacting Dispatchable Thermal Resources

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Board of Directors Meeting

ERCOT Public

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Update on EPA Regulations Impacting Dispatchable Thermal Resources

- **Purpose**
 - Update Board members regarding several ongoing and completed EPA rulemakings
- **Voting Items / Requests**
 - No action is requested of the Board; for discussion only
- **Key Takeaways**
 - EPA is in the process of adopting a number of new rules that will impact gas and coal generating facilities in the near-term and in the longer-term
 - EPA's proposed Greenhouse Gas rule would require coal and gas generators to install carbon capture or green hydrogen co-firing by the 2030s
 - ERCOT intends to continue evaluating impacts of these rules and will submit comments on these rules when appropriate
 - Cumulative impacts of rules may be difficult to ascertain
 - Texas generators will not be required to comply with the Good Neighbor Plan's NOx restrictions while a stay of EPA's disapproval of the Texas SIP is in place, meaning restrictions are unlikely to impact operations this summer

Good Neighbor Plan Update

- Good Neighbor Plan (GNP) imposes NO_x limits on generators in 22 states including Texas beginning summer 2023
- March 15, 2023: EPA approved the final version of GNP; will be effective August 4, 2023
- May 2, 2023: Fifth Circuit granted Texas's motion for a stay of EPA's disapproval of Texas's State Implementation Plan (SIP)
 - June 1, 2023: EPA issued memo acknowledging that the stay of the SIP disapproval precludes application of the GNP in Texas until stay is lifted
 - Highly unlikely that GNP will apply in Texas in summer 2023
- June 5, 2023: Texas filed suit challenging GNP

Proposed Greenhouse Gas Rule

- In May, EPA proposed major new CO₂ restrictions for coal and gas units
- Existing coal units that are intended to operate past 2040 must install carbon capture and storage (CCS) by 2030
 - Units may avoid CCS requirement by committing to retire in 2035 with 20% capacity factor limit in the interim or retire in 2040 with 40% co-firing of natural gas in the interim
- Existing gas units > 300 MW with capacity factor > 50% must install CCS by 2035 or implement 30% green hydrogen co-firing by 2032 and 96% by 2038
- Requirements for new gas units depend on capacity factor:
 - Low load/“peaker” (< 20% capacity factor): only required to ensure fuel meets high-efficiency CO₂ content specs
 - Intermediate load: must install 30% co-firing with green hydrogen by 2032 and emissions levels limited to “highly efficient generation” standard in the interim
 - Base load: must install 30% co-firing with green hydrogen by 2032 and 96% by 2038
- No rules proposed for new coal units because none are planned

Proposed Greenhouse Gas Rule (cont.)

- **Comment deadline:** August 4, 2023
- Numerous parties (including ISO/RTO Council) have requested an extension; deadline will likely be extended
- ERCOT evaluating reliability impacts on thermal generation fleet
- Proposed rule indicates that relatively long lead-time for implementation is intended to address reliability concerns associated with retirements
- Proposed rule also identifies possibility of using “administrative compliance orders” to allow generators to run in violation of requirements to address one-off reliability issues that may arise from time to time

Proposed Texas Regional Haze FIP

- In April, EPA proposed a Texas Regional Haze Federal Implementation Plan (FIP); Regional Haze rule is intended to improve visibility in national parks and wilderness
- FIP would establish new limits on SO₂ and particulate matter emissions for 12 units at six power plants in Texas
- Nine of these units are in ERCOT (all coal except WA Parish 4):
 - Martin Lake 1-3 (Vistra): compliance required within 3 years of FIP effective date
 - Fayette 1-2 (LCRA): compliance required within 1 year of FIP effective date
 - WA Parish 4-6 (NRG): compliance required within 5 years of FIP effective date
 - Coletto Creek 1 (Vistra): compliance required within 5 years; retirement announced for 2027
 - ~6,650 MW of capacity total (~6,000 MW not counting Coletto Creek)
- FIP proposal identifies no ERCOT resource adequacy impact based on analysis of reserve margins in past ERCOT Capacity, Demand, and Reserves reports; this approach does not properly assess capacity shortage risks or consider localized reliability impacts
- ERCOT preparing comments to address concerns with EPA analysis; **comments due August 2**



Proposed Mercury and Air Toxics Standards Rule

- In April, EPA proposed revisions to the 2012 Mercury and Air Toxics Standards (MATS) rule to further restrict mercury and “filterable particulate matter” (fPM) emissions from coal- and oil-fired generating units, citing developments in control technologies
 - Reduces fPM standard by two-thirds
 - Reduces mercury standard for lignite-fired plants by 70% to align with emissions levels of other coal units
- Compliance would be required within three years of rule’s effective date
- ERCOT in the process of evaluating potential impacts to thermal units
- **Comment deadline:** June 23

Proposed Tailpipe Rule

- In April, EPA proposed a new rule to further reduce greenhouse gas and other emissions from light, medium, and heavy-duty vehicles
- New standards would apply to all model-year 2027 and later vehicles
- EPA estimates a 67% adoption rate for electric vehicles (EVs) by 2032 under the rule compared with current 6% adoption rate
- ERCOT does not expect to comment on rule; however, rule could have significant impact on future system load, requiring adjustments to expected EV growth scenarios