

Issues Affecting the Electric Sector

Presentation to Southern States Energy Board
Legislative Leaders Briefing

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Shared State-Federal Responsibility for an Essential Service

- Federal Power Act (1935) – “[T]he business of transmitting and selling electric energy for ultimate distribution to the public is **affected with a public interest**”
- State jurisdiction includes generation, intrastate transmission, and distribution
- Federal jurisdiction largely limited to wholesale sales of generation and transmission in interstate commerce:

“Federal regulation of matters relating to generation to the extent provided in this subchapter and subchapter III of this chapter and of that part of such business which consists of **the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce** is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.”

“[FERC] **shall not have jurisdiction**, except as specifically provided in this subchapter and subchapter III of this chapter, **over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce**, or over facilities for the transmission of electric energy consumed wholly by the transmitter.”



Purposes of Electricity Regulation

- Reliable
 - Electric service is “*invested with the public interest*”
 - FPA Section 215 (added 2005): FERC charged with “approving reliability standards” for the bulk power system
- Affordable
 - “*Just and reasonable*” rates, charges, terms, and conditions

And now . . .

- Clean?
 - How clean is clean?
 - What dimensions – climate? other air emissions? water? waste?
 - Who defines it? State? Federal? neither?
 - What if “clean” jeopardizes affordable and reliable?
- Secure

What is Clean?

Aspects

Climate

Air pollution

Water

Waste

Other

Sources

All of the above

No fossil

No fossil, no nukes

No fossil, no nukes, no
hydro

BANANA

Levels

50% by 2030 (US)

45% by 2030 (IPCC)

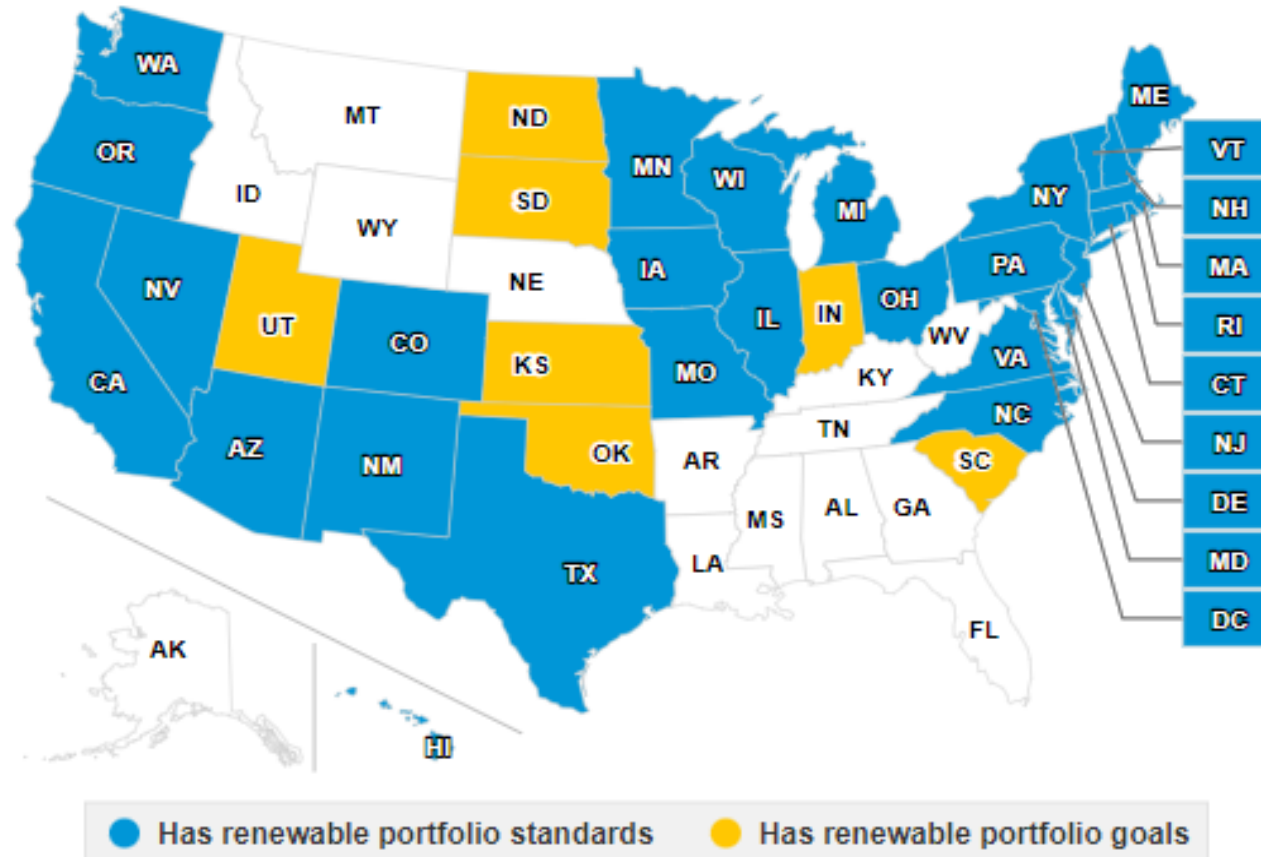
40% by 2030 (CA)

100% by 2045 (VA)

100% by 2030 (US)*

State Clean/Renewable Energy Standards and Goals

Most states have renewable portfolio standards and goals





What Is Reliable, Affordable, and Secure?

**That's the question we should be asking
as we incorporate "clean"**

Shouldn't it be at least as important for electricity as it is for cars?

Reliability at Risk

United States at risk of tight electric supplies this summer -NERC

Reuters

May 11, 2023 3:57 PM EDT · Updated a month ago

*Opening Statement of Mark C. Christie
Commissioner
Federal Energy Regulatory Commission (FERC)
Senate Energy and Natural Resources Committee Hearing
May 4, 2023*

The United States is heading for a reliability crisis. I do not use the term “crisis” for melodrama, but because it is an accurate description of what we are facing. I think anyone would regard an increasing threat of system-wide, extensive power outages as a crisis.

In summary, the core problem is this: Dispatchable generating resources are retiring far too quickly and in quantities that threaten our ability to keep the lights on. The problem generally is not the *addition* of intermittent resources, primarily wind and solar, but the far too rapid *subtraction* of dispatchable resources, especially coal and gas.

Texas grid operator again forecasts record power use amid heat wave

Reuters

June 21, 2023 8:50 AM EDT · Updated a day ago

MISSOURI INDEPENDENT

CANNABIS CRIMINAL JUSTICE ENERGY + ENVIRONMENT ELECTIONS HEALTH CARE EDUCATION

ENERGY + ENVIRONMENT

With summer coming fast, regulator issues electric reliability warning

BY: ROBERT ZULLO · MAY 18, 2023 2:03 PM



As much as two thirds of North America could face shortages of electricity this summer in the event of severe and protracted heat, according to the regulator in charge of setting and enforcing standards for the electric grid.

**“The Reliability and Resiliency of Electric Service in the United States
in Light of Recent Reliability Assessments and Alerts”
June 1, 2023**

**Before the Committee on Energy and Natural Resources
United States Senate
Washington, DC**

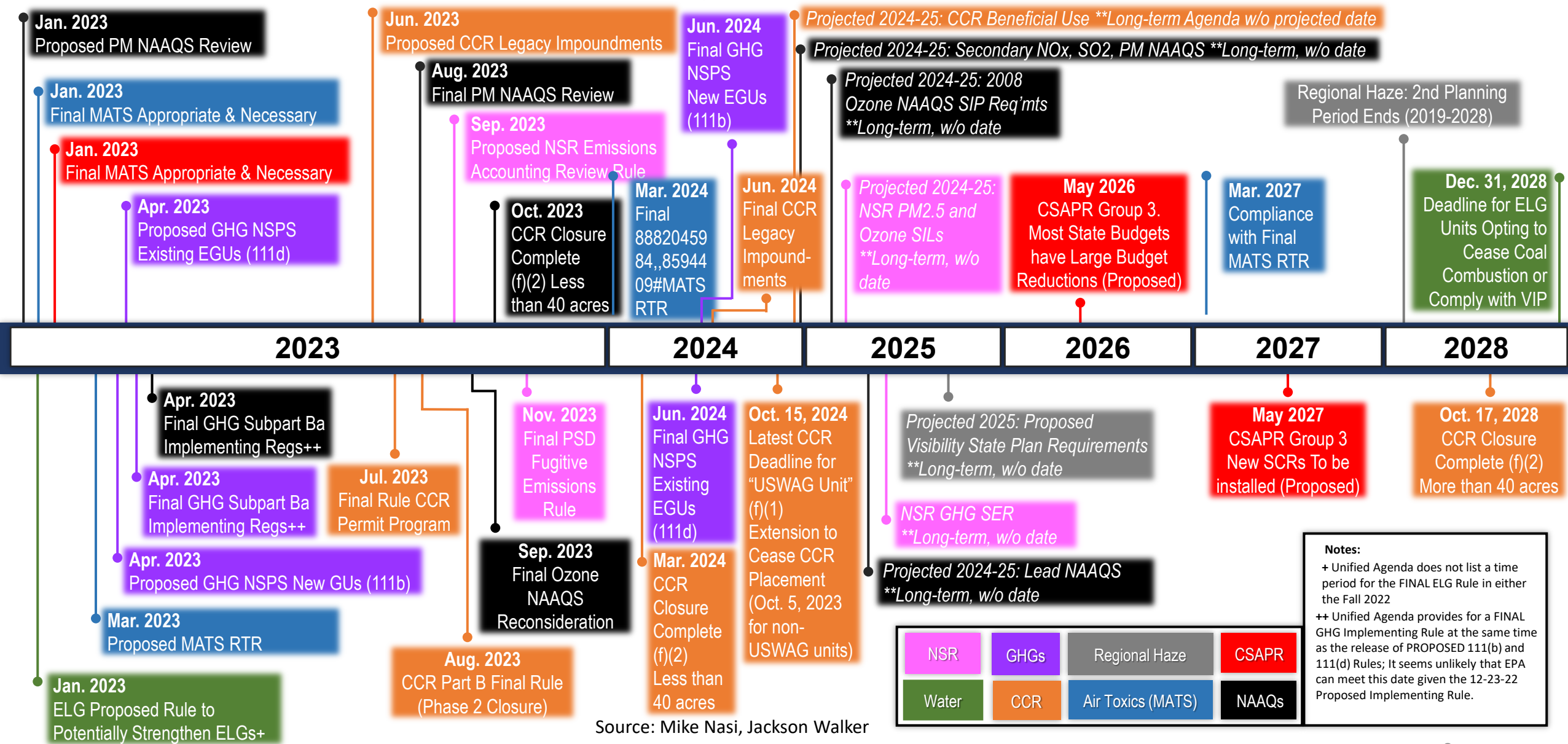
**Testimony of James B. Robb
President and Chief Executive Officer
North American Electric Reliability Corporation**

Introduction

The bulk power system (BPS) is at an inflection point. The electric transmission grid is highly reliable and resilient, and has grown more so under the current reliability regime. Yet the risk profile to customers is steadily deteriorating. Factors contribution to this deterioration include:

- Rapid, often disorderly transformation of the generation resource base,
- Performance issues associated with replacement resources as conventional units retire,
- Wide-area, long duration extreme weather events, which are becoming more frequent,
- And increased demand due to electrification, coupled with slow development of new energy infrastructure needed to support grid resilience and the clean energy future.

EPA'S NEW WAVE OF GRID-THREATENING REGULATIONS ON COAL & GAS POWER PLANTS



Regulatory Pressure for Generation Fleet Replacement: Deja Vu All Over Again

	Train Wreck (Circa 2010)	Train Wreck 2.0 (2023)
Air	<ul style="list-style-type: none">• CSAPR - Required 27 states to reduce emissions that cross state lines• Ozone NAAQS - Lowered attainment threshold to 0.070 ppm• MATS – established limits for mercury, PM HCl, and HF	<ul style="list-style-type: none">• CSAPR – More stringent rule governed by FIP, adds non-EGU industrial sources, and adds western states• Ozone NAAQS – 19 SIPs were denied• MATS – Proposed rule requires more than 2/3 reductions in mercury and non-mercury HAP emissions
Climate	<ul style="list-style-type: none">• Clean Power Plan – Generation shifting as BSER	<ul style="list-style-type: none">• Clean Power Plan 2.0 – Requires 90% CCS by 2035 or 30% hydrogen co-firing by 2032, and 96% co-firing by 2040
Water	<ul style="list-style-type: none">• ELG – established new & additional requirements for six waste streams	<ul style="list-style-type: none">• ELG – Establishes zero-discharge limitation for FGD & bottom ash,
Waste	<ul style="list-style-type: none">• CCR – created restrictions for landfill & surface impoundments but excluded legacy sites	<ul style="list-style-type: none">• CCR - Establishes a federal CCR permitting program for states that do not have their own approved CCR programs and likely to include inactive landfills & impoundments

Climate – Proposed 111 Rule for CO2

- Would require fossil-fueled power plants to control GHG emissions by specific dates
- EPA proposed that carbon capture and storage is the “best system of emission reduction . . . adequately demonstrated” for these facilities
- History
 - December 7, 2009 – EPA finds that GHG emissions endanger public health and welfare
 - August 3, 2015 – EPA adopts Clean Power Plan (CPP)
 - February 9, 2016 – Supreme Court stays CPP
 - October 10, 2017 – EPA rescinds CPP
 - June 19, 2019 – EPA issues Affordable Clean Energy (ACE) rule
 - January 19, 2021 – D.C. Circuit vacates ACE rule
 - May 23, 2023 – EPA proposes CPP 2.0; comments due by August 8

	2030	2032	2035	2038
New Gas CT (BL)		30% H co-fire	90% CCS	96% H co-fire
Existing Gas CT (BL)		30% H co-fire	90% CCS	96% H co-fire
Existing Boilers				
Coal > 2040	90% CCS			
Coal < 2040	40% NG co-firing			
Coal < 2032	—			
Coal < 2035 (20%)	—			
NG/Oil	—			

Air – Ozone and Mercury

Ozone

- April 6, 2022 – EPA proposes new ozone transport rule
- Applies to 26 States, including 12 SSEB States:
 - AL*, AR, KY, LA, MD, MS, MO, OK, TN*, TX, VA, WV
- March 2023 – 19 SIP disapprovals, including:
 - AL, AR, KY, LA, MD, MS, MO, OK, TX, WV
- June 2023 – FIP issued
- SIP denials stayed (filed by AG)
 - TX, LA, KY, MO

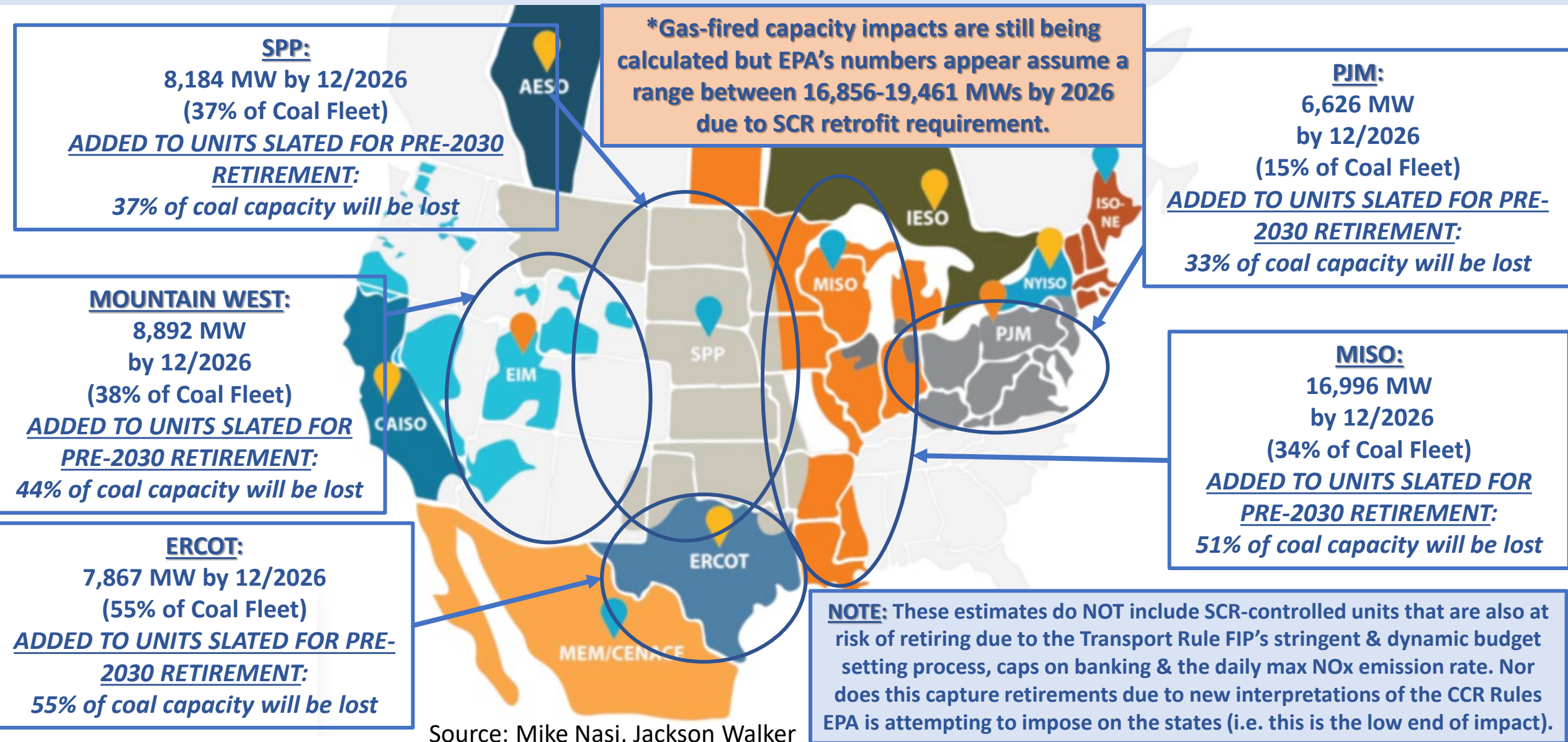
Mercury

- April 3, 2023 – EPA proposes new mercury and air toxics standard (MATS)
- fPM for existing coal-fired EGUs:
 - Current - 0.030 lb./MMBtu
 - Proposed – 0.010 lb./MMBtu
- Mercury for existing lignite EGUs
 - Current – 4.0 lb./Tbtu
 - Proposed – 1.2 lb./Tbtu (same as for other coal-fired EGUs)
- February 2023 – EPA revokes 2020 finding that it was not appropriate and necessary to regulate HAP emissions under Section 112

* Rule applies to EGUs only

RELIABILITY IMPACTS OF TRANSPORT FIP (by RTO)

(COAL CAPACITY WITHOUT SCR = SUMMER CAPACITY LOST DUE TO TRANSPORT RULE)



Water and Waste

Effluent Limitation Guidelines (ELGs)

- March 29, 2023 – EPA proposes new ELGs for steam electric plants
- More stringent requirements for:
 - Flue gas desulf (FGD) wastewater
 - Bottom ash (BA) transport water
- EPA preferred option: zero discharge
 - FGD wastewater – chemical precipitation w/membrane filtration
 - BA transport water – dry handling or closed loop systems
- Compliance exemptions extended for plants that shut down by 2028
- Less stringent requirements for plants already installing controls and shutting down by 2032

Coal Combustion Residuals (CCRs)

- May 18, 2023 – EPA proposes new CCR regulations; comments due July 17
- EPA justifies the rule in response to a 2018 lawsuit vacating an exemption for inactive impoundments
- Two main components:
 - Regulation for inactive surface impoundments at inactive utilities
 - Extend regulation to direct placement of CCR on land (CCR land management units)
- Elements of concern:
 - Arsenic (trivalent and pentavalent)
 - Thallium
 - Lithium
 - Molybdenum

Environmental, Social, Governance (ESG)

- May 25, 2022 - SEC proposes ESG reporting rule “to promote consistent, comparable, and reliable information for investors concerning funds’ and advisers’ incorporation of environmental, social, and governance (ESG) factors”
- Market pressure from BlackRock, financial sector
- Response from conservative States, and more recent counter-response from liberal States
- Pressure by investment funds is only half of the issue
 - Companies will do “E” irrespective of BlackRock
 - A second issue not getting attention is who defines what “E” actions are valuable? States need to take control of that or risk having valuable actions like CCUS not be valued at all, for invalid reasons (e.g., anti-fossil bias)

Red States Have Slowed the ESG Juggernaut

Laws against politicized investing may eventually force the hand of fund managers and blue states.

By Andy Puzder

June 14, 2023 5:54 pm ET

June 28, 2023, 5:00 AM

Blue States Counter Anti-ESG Laws With Pension, Climate Measures



Brenna Goth
Staff Correspondent



BlackRock’s Larry Fink says he’s ditching the term ESG amid political fight: ‘I’m ashamed’



Larry Fink, CEO of BlackRock, participates in a panel during the One Planet Summit in New York, Wednesday, Sept. 26, 2018. (AP Photo/Seth Wenig) [more >](#)

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FRONT PAGE PODCAST

THE WASHINGTON TIMES
June 27, 2023

00:00:00

Electric Transmission

- Federal permitting reform legislation a continuing priority for Congress
- Democrats' top issue: accelerating construction of electric transmission
- House and Senate hearings likely in July; legislation possible by EOY
- Key issues of debate:
 - Who pays (cost allocation)
 - Who decides (applicant-led or DOE-driven)
 - Interregional planning and transfer capacity

• What the environmental groups want:

on the table, including those made possible through the Inflation Reduction Act. To fully realize the IRA's emissions reductions benefits and transition to a clean grid, we need to at least double current transmission capacity by the end of this pivotal decade.

We urgently need policy reform. We need to modify and improve the rules of the road for planning, paying for, and siting transmission. And we need to create a federal pathway for siting transmission lines that are essential to bringing new renewable generators online. But we must also reject the false choice between quickly ramping up transmission

transmission to achieve an equitable clean energy future. The recommendations described below were first issued in late 2022 in [The Principles for Accelerating Clean Energy Deployment Through a Transmission Buildout in an Equitable Clean Energy Future](#) (Transmission Principles), a roadmap for building transmission to achieve our climate goals and prevent harm to impacted communities.¹ As discussed in the Transmission Principles, many of the reforms needed can be implemented under existing legal authorities. For example, the Federal Energy Regulatory Commission (FERC) has the authority to account for the full benefits of transmission; ensure meaningful public engagement





Carbon Sequestration

- Inflation Reduction Act implementation
 - Section 45Q carbon sequestration tax credit
- Infrastructure Investment and Jobs Act implementation
 - Grant and loan programs
 - Carbon Dioxide Transportation Infrastructure Finance and Innovation Act
- Pipeline and Hazardous Materials Safety Administration
 - CO2 pipeline safety regulation
- Underground Injection Control (UIC) Program primacy
 - EPA issues Class VI (carbon sequestration) permits in all States except those with primacy
 - States with primacy – North Dakota, Wyoming
 - States applying for primacy – Louisiana, Texas, West Virginia

Today's Presenter



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