



NARUC

National Association of Regulatory Utility Commissioners

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Essential Guide to NARUC Coal and Carbon Management Resources



Overview

National Association of Regulatory Utility Commissioners (NARUC) members are increasingly seeking more information about coal and carbon management infrastructure needs, impacts, and the role of public utility commissions (PUCs). This guide connects commissioners and commission staff to essential coal and carbon management resources that NARUC has developed. All of these resources can be found on the [NARUC Coal and Carbon Management webpage](#).

The NARUC Center for Partnerships & Innovation (CPI) collaborates with the U.S. Department of Energy (DOE) to maintain the DOE-NARUC Coal Modernization and Carbon Management Partnership. This partnership was established as a cooperative effort to highlight new technology and utility regulatory approaches to: 1) Improving the environmental and economic

performance of coal-fired power plants; 2) Understanding new market opportunities for coal byproducts; and 3) Increasing the deployment of carbon capture, utilization, and storage (CCUS) products. For more information, contact Kiera Zitelman, kzitelman@naruc.org, or Kathryn Kline, kkline@naruc.org.

Foundational NARUC Resources on Coal and Carbon Management and the Role of PUCs

[Grid Reliability and U.S. Coal Fleet Performance: Considerations for State Regulators](#), July 2025

This briefing paper provides state utility regulators with a comprehensive and current understanding of the reliability attributes of coal as a generation resource, potential reliability impacts associated with near-term coal plant retirements, and possible mitigation strategies to ensure a stable and resilient energy system.

[Recent Changes to U.S. Coal Plant Operations and Current Compensation Practices](#), January 2020

This white paper examines the impact of changes in the electricity generation mix on operating coal-fired power plants and offers an overview of strategies for coal plant owners and operators to manage costs while providing flexible electricity generation.

About the NARUC Center for Partnerships & Innovation

NARUC CPI identifies emerging challenges and connects state commissions with expertise and strategies to navigate their complex decision-making. CPI accomplishes this goal by building relationships, developing resources, and delivering training that provides answers to state commissions' questions.

NARUC CPI conducts work in five key energy topics: generation; transmission; distribution; customers; and critical infrastructure, cybersecurity, and resilience. Find all resources and upcoming events at: www.naruc.org/cpi.

Publications and Activities on Key Topics in Coal and Carbon Management

The following resources can be found on the [NARUC Coal and Carbon Management webpage](#). Hyperlinks lead to PDFs of the publications or webinar presentations. To view recordings of past webinars, visit the Coal and Carbon Management webpage or [NARUC's YouTube channel](#).

Carbon Capture, Utilization, and Storage (CCUS)

[Onshore U.S. Carbon Pipeline Deployment: Siting, Safety, and Regulation](#), June 2023

This report serves as a primer for regulators and stakeholders who seek to better understand the regulatory challenges and opportunities facing CCUS technology. It covers numerous regulatory issues surrounding carbon pipeline development, including the current narrow federal definition of carbon dioxide and the considerable variation in state and local governments' laws and regulations.

[Carbon Capture, Utilization, and Sequestration: Technology and Policy Status and Opportunities](#), November 2018

This paper examines the present state of CCUS and the challenges to widespread deployment in the energy sector. It offers an array of actions policymakers and utility regulators can use to encourage CCUS adoption to extend the life of existing coal-fired power plants while drastically cutting carbon dioxide emissions, illuminating how the coal plant of the future could look.

- [Webinar: Policy Outlook for Carbon Capture in the 2020s](#), June 2022

CCUS is increasingly being recognized as an essential solution for reducing economy-wide carbon emissions and providing economic stimulus. This webinar provided a high-level overview of the federal policy landscape for CCUS, with panelists sharing their perspectives on key CCUS-related elements of recent federal climate, infrastructure, and stimulus initiatives; administration views on the role of CCUS in the power and industrial sectors; and the role of DOE and the National Laboratories in advancing CCUS technologies.

- [Webinar: Advancing Innovation with CCUS Hubs: A Case Study of Houston, Texas](#), April 2022

Carbon capture is a key pathway to meeting decarbonization goals, particularly for baseload electricity generation and hard-to-abate industrial sectors. On this webinar, panelists shared perspectives on why Houston is a likely location for a net-zero hub, opportunities for co-located carbon capture and hydrogen production, and how regulators can deploy technologies that benefit ratepayers and the environment in Texas and beyond.

- [NARUC/WIEB Carbon Capture, Utilization and Storage Workshop Webinar Series](#), September & October 2020

This six-part webinar series (co-sponsored by NARUC and the Western Interstate Energy Board (WIEB)) explored challenges and opportunities facing the U.S. coal fleet related to CCUS and connected stakeholders with experts from the power industry, federal and state government, and other key voices.

Coal Retirements and the Energy Transition

[Coal to Nuclear Repowering: Considerations for State Energy Offices and Public Utility Commissions](#), April 2024

This report highlights some of the benefits and challenges associated with the coal to nuclear repowering process, with a particular focus on the policy, programmatic, and regulatory considerations of relevance to State Energy Offices and PUCs.

[Mitigating Stranded Asset Risks to Utility Customers: an Exploration of Securitization and Retiring Coal Generation](#), February 2024

Coal in the U.S. has dropped to providing less than 20% of electricity generation, down from 51.7% in 2000, with 9.5 GW of coal-fired capacity retiring in 2023. This report explores the use of securitization to mitigate costs to ratepayers from retiring coal plants that haven't fully depreciated, compared to cases in which coal plants retire prematurely and owners continue to recover undepreciated costs through rates.

[Regulators' Energy Transition Primer: Economic Impacts on Coal-Producing Communities, Environmental Justice Considerations, and Implications on Clean Energy Jobs](#), October 2021

This primer offers a background for NARUC members to understand how the transition from coal to low-carbon energy resources is affecting communities and workers. It also provides further discussion of the environmental, climate, and energy justice considerations of the transition, as well as an overview of current federal programs and funding available to support affected communities.

[The Role of State Utility Regulators in a Just and Reasonable Energy Transition: Examining Regulatory Approaches to the Economic Impacts of Coal Retirements](#), September 2021

This report examines the authority of PUCs across the country to consider non-energy economic impacts beyond direct ratepayer effects and summarizes approaches that PUCs, utilities, and other stakeholders have used to mitigate the economic fallout of coal retirements, specifically.

[Coal and Carbon Management Guidebook: Coal-to-Hydrogen Opportunities and Challenges](#), September 2021

This guidebook provides a detailed outlook on the opportunities and challenges for coal and biomass resources and infrastructure to participate in the growing low-carbon hydrogen economy. It also outlines the present and forecasted market demand for hydrogen, addresses how state utility regulators can analyze and manage risks associated with low-carbon hydrogen technologies, and summarizes DOE's investments in research and development for hydrogen production from coal and biomass.

- [Webinar: Public-Private Partnerships Critical to Addressing Economic Impacts in Energy Communities](#), May 2025
On this webinar, three experts delve into the trends and changes impacting the energy industry, examining its profound implications for these energy communities and the workforce as well as the pivotal roles and responsibilities of utilities and regulatory bodies. The discussion highlights resources and strategies available to facilitate economic diversification within energy communities.
- [Energy Transition Workshop Summary](#), June 2022
On June 22, 2022, NARUC hosted an Energy Transition Workshop in Chicago, Illinois following the conclusion of the Mid-America Regulatory Conference. The workshop convened stakeholders from across the state energy policy and regulatory landscape to examine the impacts of coal retirements and assess opportunities to enable an inclusive energy transition.

Federal-State Engagement

- [Webinar: NARUC Member Briefing on Recent White House Actions Impacting Coal-Fired Power Generation](#), April, 2025
Michelle Bloodworth and Paul Bailey with America Power shared an overview of recent executive orders and proclamations impacting the coal-fired power fleet with a focus on provisions of these executive actions with impacts on state utility regulators.
- [Webinar: CCUS: Financial Incentives and Investment Efforts](#), September 2020
This webinar explains the section 45Q and 48A tax incentives and discusses other financial mechanisms, such as private activity bonds, master limited partnerships and opportunity zones currently in place to govern and promote CCUS activities and deployment.

Coal Products

- [Webinar: What's Ahead for Coal and Carbon Capture](#), March 2025

The political and market environment for coal-fired power and CCUS investments has changed markedly since the start of the second Trump administration this January. On this webinar, state regulators heard perspectives from energy consultants, thought leaders, and competitive power producers. Panelists focused on anticipated changes to environmental regulations, tax credits for CCUS, and electricity markets.

- **Webinar Series: Beneficial Coal Ash Reuse: Surveying Industry Opportunities**, January & February 2024

This two-part webinar series explored industrial opportunities for coal ash. In [part one](#) of the series, attendees discovered the environmental and industrial benefits of coal ash reuse, hearing from companies and researchers about current and developing products. [Part two](#) focused on the challenges and obstacles that hinder coal ash reuse in the United States.

- [Briefing Webinar: NETL's Critical Mineral Sustainability Program](#), May 2023

This webinar provided information on the history and progress of the National Energy Technology Laboratory's (NETL) Critical Mineral Sustainability Program, including updates from pilot project participants, and provided discussion about the impacts and opportunities at the state level for regulators.

- [Webinar: R&D Spotlight: The Wyoming Innovation Center and Market Opportunities for Coal Resources](#), October 2022

The Wyoming Innovation Center opened its doors on June 14, 2022, as a location to conduct research on carbon capture, rare earth element extraction from fly ash, and other coal-to-products research. This webinar shared information about the creation of the Wyoming Innovation Center, current and upcoming projects, and the impact the Center's work will have on emerging market opportunities and innovative methods to use domestic coal resources in the growing clean energy economy.

- [A Comprehensive Survey of Coal Ash Law and Commercialization: Its Environmental Risks, Disposal Regulation, and Beneficial Use Markets](#), January 2020

Utility-owned coal ash impoundments can be found in 24 states across the country. Although 64 percent of coal ash is recycled, disposal of the remainder is still a concern for utilities and both environmental and utility regulators due to the environmental and public health threats and costs of potential coal ash spills, as have occurred in some states. This paper offers a comprehensive look at coal ash policies and challenges for utilities, state utility regulators, and other stakeholders.

Non-NARUC Coal and Carbon Management Resources

- [U.S. Carbon Capture Activity and Project Map](#)

This resource, developed by the Clean Air Task Force, maps carbon capture activities across the United States. The interactive map identifies the carbon capture activity subsector, project capture capacity, and whether or not the project is operational or in the development stage.

- [Biannual Compendium of Carbon Capture Technology](#)

This compendium, developed by NETL, highlights efforts related to NETL's Carbon Capture program, including the development of sorbents, solvents, membranes, and novel concepts for both post- and pre-combustion CO₂ capture.