

State Utility Commissioners and Staff Tour LG&E's Mill Creek Generation Station and Discuss Coal in the Mid-Atlantic Region in Louisville, Kentucky

By: Kathryn Kline, Senior Technical Advisor, NARUC Center for Partnerships & Innovation
June 30, 2025

The National Association of Regulatory Utility Commissioners (NARUC) hosted a site visit to Louisville Gas & Electric's (LG&E) Mill Creek Generation Station (Mill Creek), a 1,465-megawatt coal-fired power plant, as part of the Mid-Atlantic Conference of Regulatory Utility Commissioners (MACRUC) 30th annual education conference hosted in Louisville, Kentucky, in June 2025. Operating for more than 50 years, Mill Creek has implemented advanced pollution controls to reduce sulfur dioxide (SO₂), mercury, and particulate emissions.

During this site visit, stakeholders, state utility commissioners, and state utility commission staff representing NARUC, the Kentucky Public Service Commission (PSC), Virginia State Corporation Commission, and New Jersey Board of Public Utilities received a safety orientation, participated in a plant briefing presented by Mill Creek staff and engineers, toured Unit 2, and asked LG&E staff technical questions about the facility.

Mill Creek is LG&E's largest coal-fired power plant and sits on 544 acres of land adjacent to the Ohio River in Jefferson County, KY, approximately 20 miles south of downtown Louisville. Mill Creek began commercial operations of Unit 1 in 1972, with three additional units coming online in the next 10 years. All coal units at Mill Creek are equipped with electrostatic precipitators to remove fly ash, and a flue gas desulfurization system to remove SO₂ from the flue gas. Mill Creek is unique among coal plants in that it is able to receive coal to the site by either train or barge via the Ohio River. LG&E keeps a supply of coal on-site that would power the facility for approximately 40 days.



Kentucky enacted a law in 2023 that requires jurisdictional utilities to receive approval from the Kentucky PSC before retiring an electric generating unit. In an order issued in November 2023, the PSC granted approval of LG&E's request to retire Mill Creek Units 1 and 2, on the condition that Mill Creek Unit 5 (a proposed combined cycle gas plant) was in operation before Unit 2 was shutdown. LG&E retired Unit 1 in late 2024 and has since broken ground on construction for Unit 5. Since that time, significant load growth has led LG&E to reconsider the retirement of Unit 2.

The NARUC site visit to Mill Creek Generation Station provided utility regulators with valuable insights into the plant's operations, pollution control technologies, and future plans amid evolving energy demands. As LG&E balances system reliability with environmental goals, Mill Creek remains a critical component of Kentucky's energy generation infrastructure.

NARUC also facilitated a roundtable discussion with state utility regulators and stakeholders regarding the present and future role of coal generation in the mid-Atlantic region. Participants discussed tools available to state regulators, grid operators, and DOE to ensure that generators deemed critical to reliability continue running. As load growth from manufacturing, electrification, and data centers has prompted some utilities to reconsider or delay the retirements of coal units, there is a strong need for continued dialog and education among state regulators and stakeholders regarding the reliability attributes of coal plants and other generation resources. Integrated resource planning processes can offer a venue for these discussions. Many stakeholders are proposing changes to increase the accessibility of these proceedings and enable information-sharing with regulators.

To learn more about the DOE-NARUC Coal Modernization and Carbon Management Partnership and participating in future activities, please visit www.naruc.org/core-sectors/electricity-energy/coal-and-carbon-management/.