

Forecast Risk: Fuel Economics

The implications of NERC's latest coal-heavy forecast for investors and limited partners

Why keeping coal online will be so expensive

Investors regularly optimize for demand growth but often struggle to model the complexity imposed by supply constraints.

In energy, remembering both sides of the equation has never been more important.

New analysis from the North American Electric Reliability Council (NERC), the institution charged with guaranteeing coordination across the North American power sector, highlights a new risk for infrastructure investors and LPs allocating capital in 2026: Coal retirements.

In energy markets, data center demand projections have soared, capturing investor attention and securing nearly \$250 billion of project financing capital last year alone, but awareness of matching power supply constraints is only just becoming widespread.

The US and Canadian power grids are clearly facing strain from data center demand, but NERC now says the real risk to reliability in power service comes from planned power plant retirements – overwhelmingly from coal plant retirements.

The focus on elevated risk across 12 or NERC's 23 assessment areas stems more from coal retirements than from demand growth over the next decade. The biggest risks are concentrated in the next five years, as the boom in 1. new utility scale battery additions and 2. natural gas uprates presaged by 2025 financing activity fails to compensate for coal retirements until the early 2030s.

King Coal grows old

A wave of coal generation buildout in the early 1980s following the oil embargo of the late 1970s has now reached its design life end point, and in competitive power markets many owners now face a bill for costly upgrades on the basis of capacity payments alone if they want to stay online. These units are set for retirement.

A number of even older coal units have repeatedly extended their operating life, but would need to be almost entirely rebuilt to stay online for another decade. These units are also set for retirement.

The ordinary response by power market operators and local regulators to NERC's alarming new forecast would be to designate many of these coal units as "reliability must run" units, commonly called RMR units by power market participants.

These RMR units are forcibly kept online and running to manage the peak hours of demand in the energy year, operating inefficiently from a market perspective but maintaining total system reliability.

RMR unit economics tend to be disastrously expensive for power market operators seeking to control costs, and for politicians hoping to limit rate increases for retail power consumers (and voters). They keep inefficient units online and burning costly fuel, even as offtake is highly intermittent.

RMR constructs vary by region and state, but they universally create a special revenue structure to compensate the unit's owners for keeping online a unit they would otherwise retire.

Power market operators and politicians have traditionally been reluctant to encourage a proliferation in RMR orders for that reason. But some asset managers and investors have been able to garner well-above general market returns in recent years by betting that these kinds of RMR orders will be necessary to maintain basic resource adequacy standards as defined by NERC.

The federal government has stepped in with emergency orders to keep some units online under rarely used authorities that can keep coal units forcibly open and running hot, but the lack of precedent has created uncertainty about who will end up paying for units now producing power that is 1. vital for controlling seasonal capacity costs but 2. remains uncompetitive for much of the year.

Investor Considerations

While some investors with pre-existing exposure to aging coal plants that able to qualify for traditional RMR contract structures may garner higher-than-forecast revenue for those units over the next five years, a one-way RMR bet on NERC's latest model comes with multiple risks.

With high capacity costs already in focus, ratepayers and their representatives may push back on expensive RMR constructs applied to many more plants. Any downward shift in the shape of forecasted load demand could just as suddenly cut off an "RMR payoff" for a qualifying coal plant as the capacity is no longer needed.

New investors may be better served focusing on the price trajectory and market structure of capacity attributes, taking a more technology-agnostic view of the resource adequacy service being provided.

Capacity payments are increasingly important to both current revenue stacks at generating units across organized power markets - and as part of project finance considerations.

Noreva Price Outlooks

Noreva's base case for capacity pricing shows a significant appreciation in capacity pricing in several key markets. Summer capacity pricing in SPP will stabilize in a \$6-8/kw-mo band through 2050 according to current long-term Noreva forecasts, but in MISO North summer capacity could rise by nearly 700% over the same period in the base case as retirements bite.

Understanding how to service that call on capacity in the most efficient way and with the most targeted electrons will be the key technology, operational and financial challenge energy transition investors face through the coming wave of power generation project financing.

With at least \$500 billion of power generation supply planned capex set to drive investment in the next decade, understanding the nuances of the interplay between fuel types, forecast risks and attribute markets is vital to effective capital allocation by LPs.

For a demonstration of the ways Noreva can help you navigate this new energy return matrix, contact sales@noreva.ai to learn more about our AI-enhanced and trade-aligned forecasts.

Energy Markets This Week

Fuel oil futures blowout

Trade volumes were elevated across the energy complex on Monday February 2 after Kevin Walsh's nomination for Federal Reserve Chair was announced and expectations of future dollar weakness retraced, dragging commodities prices lower.

Prices gapped lower for fuel oil in particular as volumes hit their highest level since April 2021 for the product, exerting pressure across the clean fuels complex as well.

"Powered-land" strategies for AI

A Wall Street Journal story on February 2 noted what Noreva clients already knew: The "build premium" provided by experienced power developers to get electrons matched to AI chips can add up to tens or even hundreds of millions of dollars over a 20-year PPA period.

Infra funds continue raises

More than \$2.5 billion in fund closes for US and European energy transition private market platforms were announced in the last week, including new capital for secondary infrastructure fund stakes focused on natural gas and renewable power.

Silver price decline means solar relief

A historic drop in silver prices may mean relief for solar module pricing, as previous rapid increases in the precious metal price had driven the silver "share" of landed panels from 3% in 2023 to 29% by mid-January.

The input price surge had prompted substitutions by solar manufacturers who subbed in copper for silver where possible, but production costs could now take months to reset lower again as the impact of high silver prices linger through the supply chain.

Offshore wind construction orders

Judges continue to clear construction restarts at offshore wind farms along the US Atlantic coast, but deep uncertainty remains for power, capacity and renewable energy credits markets in which the large volumes of clean, high-capacity factor supply could warp price forecasts.

Even under normal conditions, offshore wind farms remain challenged. Dominion Energy delayed its expected COD for its major CVOW project and boosted forecasted costs by more than \$365 million. The company's primary service region within PJM has consistently hit the highest prices in recent capacity auctions.

Permitting talks restart

As offshore wind permitting restarted at US federal agencies, Congress and energy industry associations resumed their push for broader permitting reform ahead of the US midterms later this year. Congressional Democrats had held back on discussions until offshore wind permitting processes resumed, and a Senate Committee on Environment and Public Works hearing in late January restarted a process that has stalled in the House of Representatives.

New Jersey SRECs in focus

Renewable energy generators supply RECs in PJM continued to circle a proposal before New Jersey's Board of Public Utilities even after the original backers pulled out. The proposal would allow some other PJM RECs to qualify for the New Jersey solar RECs program, diluting the premium that NJ SRECs have garnered in recent years.

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