Technical Conference: FERC Comes for Capacity Markets

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Tens of billions of dollars of new power projects are at risk from sweeping potential changes to the regulation of capacity and resource adequacy markets in the United States.

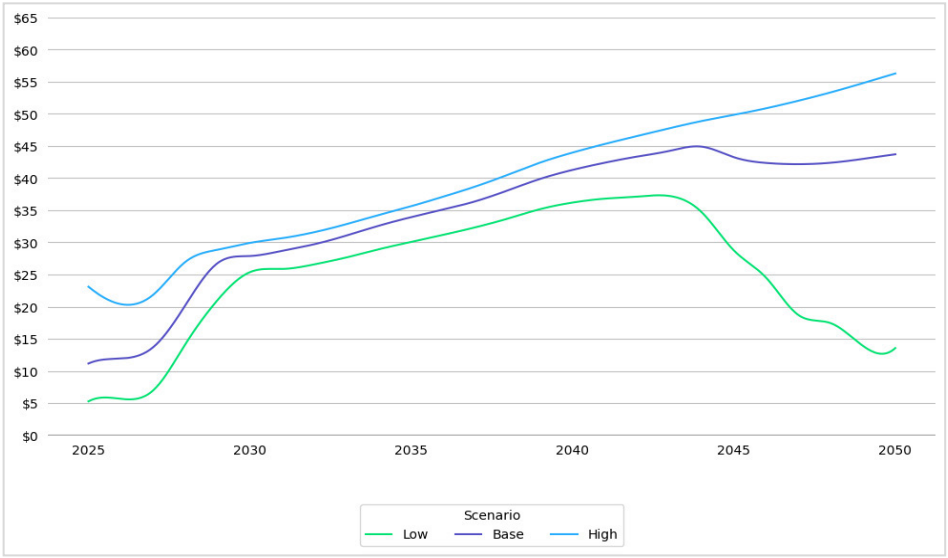
An emerging bureaucratic battle royale over the emergency authority -accelerated by President Trump's Executive Order 14156 -between the Department of Energy and the Federal Energy Regulatory Commission (FERC), has become focused on the role of bilateral capacity pricing across competitive U.S. power markets.

"The nameplate number days are gone," FERC Chairman Mark Christie told the CEOs, state utility chairs and ISO leadership gathered in Washington, DC for this month's "Technical Conference on Resource Adequacy."

At FERC's DC headquarters packed lobbies, overflowing security lines and a rarely used spillover room were testament to the high profile of a segment of U.S. energy markets that is usually relegated to the sidelines.

As low-cost renewable energy has become increasingly dominant across more hours on the grid, the traditional power markets equation has flipped: from when run-of-day energy, whether merchant or under a PPA, was expensive and capacity was cheap, shifting to one where energy price outlooks are disconnecting from capacity price forecasts.

MISO North Summer Capacity Merchant Curve Forecast $/kw-mo.



Increasingly, project financiers, project developers, and large power buyers are as concerned with buying or selling capacity, allocated through accreditation programs, as they are with underlying power production.

Project developers are using modeled capacity revenue forecasts to raise money for new projects, while project financiers scramble to find new ways to hedge their exposure to a volatile yet increasingly critical component of their generation capital stack.

Noreva Research has seen deals running out as far as 20 years that incorporate anticipated revenue from sales of capacity, a significant term extension from the prompt and prompt-plus market constructs that have traditionally shaped bilateral hedging for capacity and resource adequacy.

The merchant curve capacity forecasts undergoing updates at Noreva Research illustrate the persistence and pervasiveness of capacity shortfalls in the U.S. MISO and SPP operators at FERC described living at the edge of the Planning Reserve Margin (PRM) (which for MISO North Summer is 7.9%) as the "new normal" going forward, and pricing for future capacity indicates they are correct.

Capacity Spotlight

Capacity itself is a relatively capacious concept, in part because each state regulator, ISO and federal agency approaches the requirement for meeting the highest demand hours on the grid slightly differently.

Capacity and resource adequacy have functionally different meanings and standards not only across the country's varied power market structures, but even within ISOs and RTOs, where varying degrees of deregulation and integrated resource planning approaches introduce dizzying levels of complexity.

Bilateral capacity trading as a mechanism for capacity price discovery is a legacy of the now decades-long effort to provide improved market-originated investment signals in generation and transmission. That effort has always been partial and provisional, but it has become widespread in US energy market, and the intersection of the renewable energy technology revolution with a resurgence in load growth has now brought capacity pricing to the forefront of market participants' minds.

As regulators turn the dial, whether towards a more market-driven pricing structure or "back" to a re-regulated, centralized utility construct, market operators face one of the most complex challenges of the current era, one laden with the highest possible stakes in economic outcomes.

At the FERC technical conference, these macro-level considerations were interwoven with narrowly conceived attacks on details of current RTO and ISO market structures for capacity. The growing divergence in power market designs across the U.S. threatens to fragment further, creating an even more complex landscape for investors evaluating projects. This is increasingly, incentivizing "behind the meter" capacity strategies by large tech companies -which are the dominant drivers of marginal demand growth upside.

PJM, New England Diverge

If there ever was a single apparent direction for power market development in the U.S., that vision is now fracturing, with regional, state and even intra-company differentiation increasingly defining the path forward. Generators, utilities and state commissions each advocate for their own carve-outs and exceptions to the common RTO-ISO rulebook.

Even as ISO New England touted its own move toward a single capacity market structure with seasonal accreditation elements, soon to be filed with FERC, participants in the PJM RTO spent the FERC technical conference arguing for special treatment and exceptions from the common rules that structure the country's largest bulk power market.

"If something doesn't give, we'll be in trouble in the 2030s," said ISO New England CEO Gordon van Welie said, discussing the two FERC applications he expects to file in the next 24 months.

While for participants in PJM, the self-evident failure of the region's market construct to promote building of sufficient new generation is reason enough to appeal to FERC for exemptions from PJM's restrictions. Pennsylvania Governor Josh Shapiro has been the highest-profile critic of PJM and forced a price collar on the region's capacity market after the most recent auction, a move that followed what his office described to FERC as "a lost decade of new capacity in PJM."

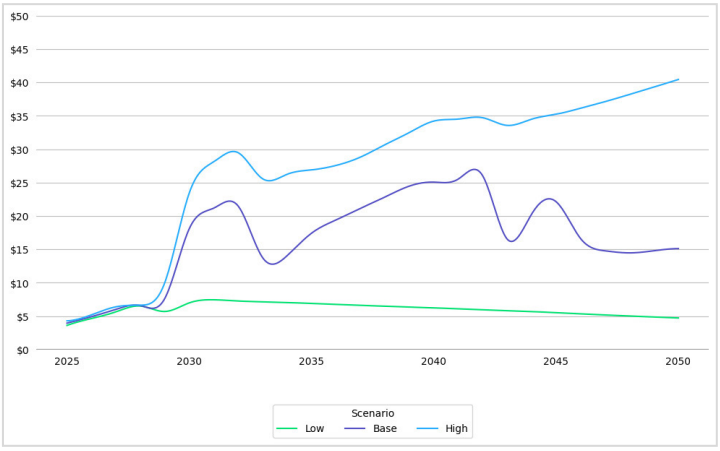
For MISO and SPP, Regional Dispersion

In the context of the FERC meeting, PJM's legacy of insufficient capacity-intensive generation buildout serves as a cautionary tale for the other major RTOs. These markets now face looming capacity shortfalls, rising prices, and pressure from members to change their operating rules and accreditation methodologies.

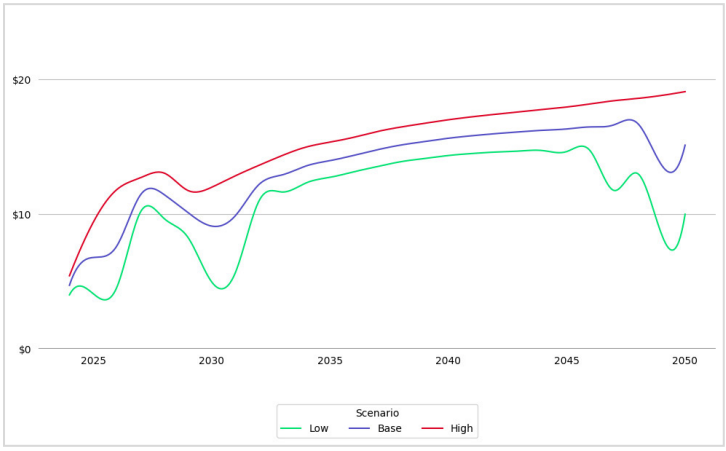
In MISO, a shift toward more exacting accreditation has created a "cliff's edge" effect in forward capacity pricing evident in the Noreva Research forecasts. At FERC, the MISO delegation advocated for the inclusion of tech-specificity in a federally organized resource adequacy framework, arguing their planning models cannot be updated fast enough to reflect technology changes.

In SPP, the ISO's risk metrics for unplanned outages have surged to roughly 125 times higher than they were only eight years ago, with an interconnection queue backlog that is more than twice the size of the current market's footprint. In conversations with counter parties, Noreva routinely hears of total interconnection queue lengths of 8 years in the region. SPP Chief Operating Officer Lanny Nickell welcomed FERC's proposition that it would set "common and consistent" accreditation standards across the country, a significant retreat from the coordination role regional ISOs generally assume for themselves.

MISO South Summer Capacity Merchant Curve Forecast $/kw-mo.



SPP Capacity Merchant Curve Forecast, Annual $/kw-mo.



Famously, ERCOT lacks an official capacity market and leans into energy-only approaches that have driven down electricity pricing through record-setting renewables additions. However, this has arguably created its own set of problems. ERCOT, though, is equally famously not under FERC's purview, since it largely avoids interstate grid connections that would bring it under federal oversight.

However, ERCOT could potentially fall under the authority of Department of Energy if current efforts at the DOE to create a nationally applicable "resource adequacy standard" that favors fossil fuels and nuclear succeeds. The statutory authority for DOE to enforce that standard would be uncertain outside of the emergency designation under EO 14156, with FERC formally empowered to oversee domestic power market structure more directly.

Reregulation Ruckus

The existential economic and geopolitical posturing around the acceleration of AI in political circles has cast the sluggish pace of new power generation additions in the U.S. as a looming crisis, one reflected for regulators in a spate of high-priced capacity auctions.

The anticipated supply shortage across the U.S. power sector is evident in capacity pricing forecasts, with Noreva Research merchant curves indicating consistent long-term price inflation through 2050. Elevated pricing outlooks in SPP and MISO are both driven by a combination of surging demand and stricter accreditation, not by a lack of nameplate capacity generation.

The mismatch between the sheer volume of electrons available and the matching of capacity has strained traditional notions of price formation in power markets, and triggered investors, developers, and corporates to center capacity revenues rather than energy revenues in their business plans.

FERC Chairman Christie, in opening the technical conference, called the resulting phenomenon an "evolution in reserve margin thinking – from energy alone to energy [existing so it can] to supply capacity."

This evolution in reserve margin thinking has the potential to further reshape investor, developer, and regulator planning as they engage with some of the highest load growth forecasts in recent history.

Efforts by states and companies to end-run their RTOs and ISOs, on show this month, directly challenge FERC's ambitions to tighten capacity market oversight. Collectively, these moves have the potential to unravel decades of steady deregulation, triggering new bouts of uncertainty in already-volatile power markets.

SPP Capacity Supply Fundamentals, Fuel Mix MW