

Independent Market Monitor's Report Proves It Once Again: Coal Units Operate Economically

In recent years, a number of activist groups have issued studies claiming that coal-fueled power plants have been self-scheduling to the detriment of market economics and consumers. Last week, Midcontinent Independent System Operator's (MISO) Independent Market Monitor (IMM) released a [report](#) that strongly refutes those claims and supports that coal plants are both economic and needed.

Studies backed by these activists claim that when utilities commit their coal plants as “must-run” resources (aka self-scheduling), they do so because their costs are above the market price for electricity, and that this practice allows these power plants to generate more and higher-cost power than the market would dictate. They further allege that utilities have an incentive to do this because they can pass these higher operating costs on to their ratepayers.

A new, independent study concludes that, contrary to these claims, coal units are in fact run efficiently and economically.

The Independent Market Monitor's findings David Patton and his firm Potomac Economics serve as the IMM for MISO, a position they also hold in the New York, New England, and Texas power markets. The IMM has an official role in electric power markets, assessing the competitiveness and efficiency of the market's rules and operations.

Dr. Patton and his firm conducted a study of coal generator operations in MISO, using detailed market data not publicly available, to determine if there was merit to claims of coal generators operating uneconomically. Their recently released study¹ doesn't mince words in dismissing these claims, concluding:

“These results cast serious doubts on the credibility of recent studies that have been published asserting that coal resources are routinely operating uneconomically at the expense of MISO's customers. Such studies have not been based on actual cost and other data that underly (sic) the analyses presented in this study. Nonetheless, it is difficult to reconcile the conclusions and claims made in those studies with the reality of the coal commitments and dispatch in MISO.”

No surprise to power market experts This judgement won't be surprising to power market insiders. While many coal-fueled generators in some power markets do self-schedule, they do not do it for nefarious, self-serving reasons.

Markets such as the ones run by MISO and the Southwest Power Pool (SPP) are “daily markets.” This means that each day the market only plans for the following day's electricity needs. The lack of multi-day planning (and pricing) results in the daily cycling of many generating units.

Due to start-up costs and routine wear-and-tear, daily cycling is not feasible for most coal units. Instead, these generators self-schedule the times they will be operating (also known as “commitment”) based on their view of the market's need over several days. Once committed,

these generators typically let the market operator determine their level of output (i.e., “dispatch.”)

Self-scheduling is not done to purposely generate more high-cost power but instead to ensure that these resources are on-line so they can be economically dispatched by MISO when needed. As the IMM’s report clearly states: **“The vast majority of coal resource commitments were profitable.”**

Historical data proves coal’s efficiency The IMM’s report contains ample data that backs up their positive conclusions about the economic efficiency of coal operators’ decisions. For example:

- Less than ten percent of all coal commitment decisions made during 2016-19 were not profitable or unlikely to be profitable given market prices (i.e., most commitment decisions were economically efficient).
- Once operating, coal units must decide whether to keep running or to shut down and incur start-up costs the next time they are committed. These dispatch decisions were made extremely well in MISO.
 - In 2016-18, 97 percent of coal unit dispatch was “efficient”—meaning it was either immediately profitable to run the unit (83 percent), or it would have been costlier to shut down and restart the unit at a later date (14 percent).
 - In 2019, coal dispatch efficiency fell to only 96 percent due to lower natural gas and power prices that made profitable time periods harder to project.
- Losses from inefficient (or uneconomic) operation of coal units amounted to only two percent of the net power market revenues earned by profitable (or economic) operation of MISO’s coal fleet. Losses incurred by units staying online rather than shutting down and restarting soon after (efficiently unprofitable periods) were also small, amounting to just over five percent of the coal fleet’s profitable value added.

It’s not the first time this conclusion has been reached It would seem that the myth of uneconomic coal generation has been dispelled once and for all by MISO’s Independent Market Monitor. But it has seemed that way before.

Earlier this year, MISO pointed out that 90 percent of the electricity generated by coal is dispatched economically by MISO itself, not by the power plant owners, meaning it is the lowest-cost resource option that MISO markets have available at the time to serve load, regardless of whether or not it was self-committed.ⁱⁱ Utilities such as Ameren Missouri, Xcel Energy, and Minnesota Power have explained to state utility commissions that self-committing their coal units has actually saved their ratepayers millions of dollars.ⁱⁱⁱ Even America’s Power has tackled this issue before.^{iv}

The evidence that coal units operate economically is now so incontrovertible, we are cautiously optimistic we will not need to prove this point again.

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ⁱ Potomac Economics, *A Review of the Commitment and Dispatch of Coal Generators in MISO*, September 2020. Results of this analysis were first previewed in the Summer 2020 Market Monitor’s report to the MISO Board of Directors Markets Committee Meeting on September 15, 2020.

<https://cdn.misoenergy.org/20200915%20Markets%20Committee%20of%20the%20BOD%20Item%2006%20IMM%20Quarterly%20Report473925.pdf>.

ⁱⁱ MISO Market Subcommittee, *Forward Market Mechanism*, April 9, 2020; and MISO, “MISO ‘self-commitment’ trends: Most coal generation is dispatched economically,” April 2020,

<https://cdn.misoenergy.org/202004%20Self-Commitment%20MISO%20Trends%20443759.pdf>.

ⁱⁱⁱ See Ameren filing in Missouri Public Utility Commission docket EW-2019-0370, Xcel Energy filing in Minnesota Public Utility Commission docket 17-492, and Minnesota Power filing in Minnesota Public Utility Commission docket 17-492.

^{iv} America’s Power, *Never Let the Truth Get in the Way of a Good Story*, June 25, 2020,

<http://www.americaspower.org/never-let-the-truth-get-in-the-way-of-a-good-story/>.