



MEMORANDUM

Date: October 20, 2017
To: Ohio Manufacturers' Association
From: Jordan Nader & John Seryak, PE (RunnerStone, LLC)
RE: Grid Resiliency Pricing Rule at FERC

On September 29th, 2017, the Secretary of Energy filed a Notice of Proposed Rulemaking (NOPR) with the Federal Energy Regulatory Commission (FERC) to issue a final rule directing Independent System Operators (ISO) and Regional Transmission Organizations (RTO) to “accurately price generation resources necessary to maintain the reliability and resiliency of our Nation’s bulk power system.”¹ The three major takeaways of the proposed rule are:

- Eligible units must have a 90-day supply of fuel on site
- Must be technologically capable to provide essential energy and ancillary reliability services
- Cannot receive state or local cost-of-service rate regulation in addition to this regulation

This rule is touted as providing significant *national security* benefits. The Secretary claimed that the Polar Vortex event of 2014 resulted in consumers choosing between heat and electricity and that this proposed rule will mitigate the risk of a similar event in the future. The Secretary has requested an expedited review process with public comments due by November 24th and a final action to be taken by December 11th.

Current Status of NOPR

The final NOPR published in the Federal Register on October 10th, 2017, had additional text that was not present in the original NOPR. Specifically, it clarified that only merchant power plants would be eligible for cost recovery and only if they keep 90 days of fuel supplied on site. However, there was an additional change that it would apply only to ISOs and RTOs that had “energy and capacity markets.” This distinction would limit this rule’s application to ISO-New England, New York ISO, and the PJM Interconnection and exclude merchant generators in the Southwest Power Pool, California ISO, and potentially the Midcontinent ISO from the benefits of the rule.

Supporting Argument for NOPR

The argument outlined by the Secretary is that premature retirements of “fuel-secure” generation threaten the resilience of the electric grid and that these resources are thus “indispensable for our economic and *national security*.” The Secretary notes that between 2002 and 2016, 531 coal generation units retired from operation and that 4,666 MW of nuclear generation announced retirement. The

¹https://energy.gov/sites/prod/files/2017/09/f37/Notice_of_Proposed_Rulemaking.pdf



Secretary considers these retirements significant but does not note the volume of new generation that has been developed since 2002 and what impact it has had in diversifying generation resources.

The 2014 Polar Vortex is pointed to as an event that tested the “resiliency of the electric grid.” DOE claims that PJM “struggled” to meet capacity requirements during the vortex despite no loss of load, active participation from demand response resources, and over performance of wind resources. The suggestion in the outlined argument is that coal and nuclear resources performed at greater than required levels during the event. There is no mention of frozen coal piles or of Beaver Valley Nuclear Station’s transformer failure due to improper operations by plant operators. The report then moves to argue that current wholesale energy and capacity markets are too short run in their design in order to sufficiently price “resiliency attributes of fuel-secure generation.” DOE points to the Quadrennial Energy Review from January 2017 wherein they previously argued that resilience is more easily accounted for in “traditional end-to-end, vertically integrated electricity delivery.” They argue that market structures “complicate reliability and resilience investment decision-making.”

DOE then points to an IHS Markit study where IHS argued that without coal and nuclear resources providing a meaningful contribution to the U.S. bulk power system, consumers would have to pay an additional \$114 billion annually in order to adequately retain the level of resilience currently enjoyed. Beyond this, DOE points to a NERC letter from May 2017 that argues the benefit of secured on-site fuel to allow coal-fired and nuclear units to operate independent of supply chain disruptions. Many commentators have pointed out that Puerto Rico’s generators have fuel at their plants but due to transmission and distribution damage were unable to deliver capacity to the grid.

Finalizing their argument, DOE points to the “extensive record on price formation in ... ISOs and RTOs” that the Commission has developed as evidence that FERC has the ability to act expeditiously. The Secretary has requested an expedited docket (some commentators have called it a “rocket docket”) to take final action within 60 days of the proposed rule being published in the Federal Register. The Secretary also requested that the final rule go into effect within 30 days of publication in the Federal Register. The NOPR was published in the Federal Register on October 10th, 2017 leading to a final action being due by December 11th, 2017.

Criticism of NOPR

The response to the NOPR has been just short of apocalyptic. Former FERC Chairman Jon Wellinghoff has been quoted saying “This would blow the market up.” He also said that “It’s going to be expensive as hell, expensive as it can be because we will be paying the full freight on coal and nuclear plants.” Former FERC Commissioner Tony Clark focused on the fact that FERC is an independent federal agency and is free to ignore the details of the DOE proposal. However, he noted that FERC has responded in the “most aggressive angle that they could” and that “it would be very challenging for the markets.” One analyst pointed out that if the concern is resilience, research should be conducted on the specific elements of resilience that are essential to the system. Once those are determined, the market can acquire those elements at the lowest cost. Instead, DOE has decided that 90 days of fuel onsite represents resilience without an “underpinning or modeling” to explain why 90 days is important. Another analyst said “having a mountain of coal...doesn’t mean [anything] if you can’t deliver the power” referencing the weaknesses observed in Puerto Rico’s



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power system. Even the American Coalition for Clean Coal Electricity (ACCCE) was “perplexed” by the 90 day focus of the proposal as most coal plants have 73-82 days of fuel on site today. In addition, there are practical limitations to storing 90 days of fuel at a site. By one estimate, a 1,250 MW natural gas combined cycle power plant would require 400 acres of compressed natural gas tanks. And if a natural gas site is able to burn diesel, it is likely that they would acquire 90 days’ worth of diesel fuel to store on site to become eligible for the rule’s benefits.

Ultimately, it will be necessary for FERC to create a rule based on a record and that a record must first be built before a decision can be made anywhere near as sweeping as the DOE proposal. Several former FERC commissioners were skeptical that the final rule would bear any resemblance to the published NOPR in the Federal Register as it “flies in the face of everything FERC has done under the Federal Power Act over the past 20 years.”