

Issue Brief: The Department of Energy's Proposed Grid Resiliency Rules

October 2017

### **Overview**

This issue brief provides an overview and analysis of the Department Energy (DOE)'s proposed grid resiliency rules providing cost recovery to coal and nuclear power, which are now under consideration by the Federal Energy Regulatory Commission (FERC). As referenced further in our formal FERC comments submitted with allies on Oct. 23, the American Council on Renewable Energy (ACORE) believes this rule has no credible basis for implementation.

Importantly, the recent DOE study of the grid<sup>1</sup> fails to document any resiliency problem that coal and nuclear power would remedy. In fact, a recent analysis concluded that less than 0.00007 percent of power outages are related to fuel supply issues.<sup>2</sup> Moreover, in extreme circumstances where the grid has been tested, on-site coal has proven to be a source of vulnerability. For example, during 2014 Polar Vortex coal piles froze, and in Hurricane Harvey, coal units went down in the Houston due to the flooding of coal supplies. Nor is it clear that nuclear power facilities, which require continuous access to cooling water to avoid a catastrophic accident, add to grid resilience. Readers will recall that Tsunami force floods led to the shutdown of the Fukushima nuclear plant in Japan and the release of dangerous radiation.

Looking closer at the specific proposal, described in less than one page of regulatory text, the DOE recommends that regional transmission organizations (RTOs) and independent system operators (ISOs) must **ensure that "eligible grid reliability and resiliency resources**," a new class of electricity generation resource, be allowed **fully allocated costs and a fair return on equity**, regardless of economic competitiveness. This new resource class is defined to include generators that: are in a FERC-jurisdictional ISO or RTO (meaning ISO-NE, NYISO, PJM, MISO, SPP, or CAISO); are able to provide essential energy and ancillary reliability services; have a 90-day fuel supply on site; are compliant with applicable environmental rules; and are not subject to cost of service regulation. DOE comments suggest that only nuclear and coal facilities should be able to meet the 90-day fuel supply requirement. The proposal does not expressly limit applicability to existing or currently operating facilities.

Under the DOE proposal, FERC would use its authority under Section 206 of the Federal Power Act to find that current tariffs are unjust, unreasonable, unduly discriminatory or preferential, and replace them with alternative rates, terms, or conditions that in effect subsidize coal and nuclear power facilities meeting the requirements of the proposal. If the Commission were to finalize the rule

<sup>&</sup>lt;sup>2</sup> Rhodium Group. (October 2017). *The Real Electricity Reliability Crisis*. Retrieved from: <u>http://rhg.com/notes/the-real-electricity-reliability-crisis</u>



<sup>&</sup>lt;sup>1</sup> DOE. (August 2017). *Staff Report to the Secretary on Electricity Markets and Reliability*. Retrieved from:

https://energy.gov/downloads/download-staff-report-secretary-electricity-markets-and-reliability

proposed by DOE, it would need to meet a high evidentiary burden in the near-certain event that its rule is challenged in court.

#### The Areas of Greatest Impact

The proposal can be expected to have the greatest impacts in the PJM market. Most of the generators in SPP and MISO are regulated, so there will likely be limited applicability in those areas. Only coal and nuclear plants typically have 90 days of such fuel supply, but there is very little coal or nuclear power in CAISO, NYISO, and ISO-NE, so these ISOs are also unlikely to experience serious impacts, unless the rule is interpreted to allow cost recovery for new facilities – a disturbing but not impossible interpretation. In terms of existing sources, the proposal effectively targets merchant coal and nuclear plants in the PJM region, where they provide approximately half the generation.

#### The Accelerated and Unprecedented Timing for a Final Rule

Section 403 of the DOE Organization Act empowers the Secretary of Energy to specify a "reasonable time limit" for Commission action. In the proposal, DOE gives FERC 60 days to issue a final rule and allows ISOs and RTOs only 15 days to comply with the final rule. Under this tremendously accelerated schedule, new tariffs are to take effect 15 days following the compliance filing.

The Commission acted on Oct. 2 to establish a new docket (RM18-1) for the proceeding and established a public comment deadline of Oct. 23 and a reply comment deadline of Nov. 7. ACORE, along with a diverse group of allied energy organizations that includes not only our colleagues in the renewable sector but also the American Petroleum Institute (API) and the Interstate Natural Gas Association (INGA), filed a motion with the Commission on Oct. 2 seeking an extension of the comment period and a rejection of the proposal that the DOE Notice of Proposed Rulemaking (NOPR) be made an interim final rule. On Oct. 11, the Commission declined the request for an extended comment period, apparently on the theory that under the statute DOE has authority to control the timeline for FERC's process, though of course FERC itself has sole authority for substantive disposition of the proposal.

## **Our View**

ACORE believes the proposal harms consumers by undermining competitive power markets in order to create subsidies for politically favored generation sources that will add little, if at all, to grid resiliency. These competitive markets for electricity have been developed over the past 25 years with strong bipartisan support, and have provided tremendous benefits to electricity consumers across the country.<sup>3</sup> The interjection of a guaranteed cost recovery mechanism for select existing units would fundamentally disrupt decades of progress compromising the critical steps of market entry and exit.

**The DOE proposal will depress investment in the electricity sector.** Investors will have reason to fear that resources that lose in market competition will be saved by government interference. When these aging units' lives are extended, in many cases to well beyond their current 50 years, the nearly certain result will be a generation glut that suppresses prices for other generation resources, undermining investors in the electric power infrastructure that relied on an understanding that less efficient resources would retire, as the market dictates, putting supply and demand in balance.

<sup>&</sup>lt;sup>3</sup> R Street. (February 2017). "Fixing the Power Grid Through Open Markets and New Technologies." Retrieved from: <u>http://www.rstreet.org/op-ed/fixing-the-power-grid-through-open-markets-and-new-technologies</u>



There is no demonstrated reason for market interference to subsidize arbitrarily designated "eligible grid reliability and resiliency resources." Grid reliability services are already fairly compensated in RTO and ISO markets.

It is significant that the term, "resiliency services," has no commonly accepted definition. In fact, the first question asked by FERC staff in the docket was, "What is resilience?" FERC staff also asked, "Is there a direct correlation between the quantity of on-site fuel and a given level of resilience or reliability?"<sup>4</sup> Additionally, the National Electricity Reliability Council (NERC) has suggested that resilience is a term that is not properly defined.<sup>5</sup> The concept became important following Hurricane Sandy and threats of cyber and physical attack. Those issues were analyzed in a National Academy of Sciences report on electric industry resilience, which did not identify resiliency resources or any benefits of a 90-day or similar on-site fuel supply.<sup>6</sup>

The proposal does not appear to be well thought through. It is, for example, a serious concern that DOE included no assessment of the quantity of preferred generation resources that are needed, even as it proposes to compensate any and all of them. Nor does DOE expressly exclude units that have already retired, and could be brought back online, or for that matter, new units.

**The DOE NOPR offers no estimate of the potential costs to ratepayers of such a broadly defined subsidy**. However, they could be immense. According to analysis, DOE's proposed rescue plan could cost ratepayers over \$10 billion annually.<sup>7</sup>

It is not clear whether renewable energy facilities would qualify as eligible grid reliability and resiliency resources. The discussion in the proposal suggests it is intended to apply only to coal and nuclear plants. However, current renewable energy technologies are able to provide frequency and voltage support, ramping services, and other services needed to support system reliability.<sup>8</sup> **Renewable sources should not be excluded from providing such grid services, and it appears that they are in this proposal. There is no basis for such discrimination against renewable energy.** 

**The proposal is too vague to allow meaningful public comment.** The Administrative Procedures Act requires that agencies offer the public an opportunity to comment on rules prior to their finalization. **In this case, there is so little detail provided and so many uncertainties about how the proposal would work that it is not possible to provide meaningful comment.** FERC staff questions issued in the docket reflect the wide range of possible meanings and directions of the rule. For example, "How would eligible resources receiving cost of service compensation under the proposed rule be committed and dispatched in the energy market?" And, "How would eligible

<sup>&</sup>lt;sup>8</sup> NERC and California ISO. (November 2013). *Maintaining Bulk Power System Reliability While Integrating Variable Energy Resources – CAISO Approach*. Retrieved from: <u>http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC-CAISO\_VG\_Assessment\_Final.pdf</u>



<sup>&</sup>lt;sup>4</sup> FERC. (October 2017). "Grid Reliability and Resilience Pricing, Docket No. RM18-1-000." Retrieved from: <u>https://www.ferc.gov/media/headlines/2017/2017-3/10-04-17.pdf</u>

<sup>&</sup>lt;sup>5</sup> NERC. (September 2017). "Powering America: Defining Reliability in a Transforming Electric Industry." Retrieved from: <u>http://www.nerc.com/news/Documents/HEC9-14-17%20Cauley%20Testimony%20Final.pdf</u>

<sup>&</sup>lt;sup>6</sup> The National Academies of Sciences Engineering Medicine. (July 2017). "Press Release: United States' Electric Grid Remains Vulnerable to Natural Disasters, Cyber and Physical Attacks; Actions Needed to Improve Resiliency of the Power System." Retrieved from: <u>http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=24836</u>

<sup>&</sup>lt;sup>7</sup> Energy Innovation and Climate Policy Initiative. (October 2017). *The Department of Energy's Grid Resilience Pricing Proposal: A Cost Analysis*. Retrieved from: <u>https://www.rtoinsider.com/icf-doe-nopr-76642/</u>

resources receiving cost-based compensation under the proposed rule be considered in the clearing and pricing of centralized capacity markets?" It is important that commentators know the answers to these fundamental operational questions in developing their comments.<sup>9</sup>

The proposal also fails to demonstrate that current tariffs are unjust, unreasonable, unduly discriminatory, or preferential as required under Federal Power Act Section 206. The reports cited by DOE in the NOPR simply claim that resilience may be an issue requiring study, and fail to support the claim that markets are not working or are failing to compensate resources that are needed. The proposal fails to support the proposed departure from competitive markets in electricity.

**The proposal hinders consumer choice.** Increasingly major corporations along with individual families and small businesses are choosing the kind of electricity they want. In most cases that choice is renewable energy. If this rule is finalized, those consumers will likely be forced to pay for the power they do not want, in addition to the power they do want. This double charge would be unjust and unreasonable.

We respectfully suggest that FERC regulation should not pick winning or losing technologies. Instead, federal rules should set performance criteria and promote market competition to ensure services are provided at the lowest cost. Current renewable energy technologies provide frequency and voltage support, ramping services, and other important services that support system reliability, and should be incentivized as part of any FERC effort to promote resilience.<sup>10</sup>

# A Better Path for Reliability, Resilience and Affordability

Given the substantial negative impacts associated with the proposal to upend the current electricity marketplace with new subsidies for coal and nuclear power, ACORE offers the following recommendations to better to promote electric power system reliability, resilience and affordability:

- We believe the Commission should reject the DOE proposal outright, as there is no way to repair the cost-of-service ratemaking proposal in a way that does not undermine competitive markets or impose great costs on business and residential electricity consumers.
- 2) We encourage the Commission to first define what the term "resilience" means, determine what needs exist, and assess whether the needs are being compensated in the marketplace. Such information could support a future action if the Commission finds that needed services are not being sufficiently compensated.
- 3) We urge the Commission to evaluate whether recent reforms instituted after the 2014 Polar Vortex event have sufficiently addressed the incentives for grid resources. The assessment should also address whether coal and nuclear plants provide resiliency given constraints on cooling water availability, coal pile flooding or freezing, and nuclear re-fueling.
- 4) We further suggest that the Commission focus on known resilience issues including recent hurricane damage, and the threats of other forms of severe weather, and cyber and

<sup>&</sup>lt;sup>10</sup> NERC and California ISO. (November 2013). *Maintaining Bulk Power System Reliability While Integrating Variable Energy Resources – CAISO Approach*. Retrieved from: <u>http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC-CAISO\_VG\_Assessment\_Final.pdf</u>



<sup>&</sup>lt;sup>9</sup> FERC. (October 2017). "Grid Reliability and Resilience Pricing, Docket No. RM18-1-000." Retrieved from: https://www.ferc.gov/media/headlines/2017/2017-3/10-04-17.pdf

physical threats. Disaster preparedness as proposed by the DOE staff grid study will be important going forward as these threats increase.

5) If the Commission finds that there is a generation service that is not being procured or sufficiently compensated, it can institute a proceeding to correct the market design flaw. It should precisely define the service and allow bidding from any and all supply or demand sources that are capable of providing it. Renewable energy sources should be allowed to provide any service that is defined.

