The Secretary of Energy
Washington, DC 20585

September 28, 2017

Neil Chatterjee, Chairman
Cheryl A. LaFleur, Commissioner
Robert F. Powelson, Commissioner
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: *Secretary of Energy's Direction that the Federal Energy Regulatory Commission Issue Grid Resiliency Rules Pursuant to the Secretary's Authority Under Section 403 of the Department of Energy Organization Act*

Dear Mr. Chairman and Commissioners:

America's greatness depends on a reliable, resilient electric grid powered by an "all of the above" mix of generation resources. This diverse mix of resources must include traditional baseload generation with on-site fuel storage that can withstand major fuel supply disruptions caused by natural and man-made disasters. But the resiliency of the electric grid is threatened by the premature retirements of these fuel-secure traditional baseload resources.

As the agency responsible for regulation of the organized power markets operated by the Commission-approved regional transmission organizations (RTOs) and independent system operators (ISOs), it is time for the Federal Energy Regulatory Commission ("Commission" or "FERC") to issue rules to protect the American people from the threat of energy outages that could result from the loss of traditional baseload capacity. In the wake of the devastation wrought by the Polar Vortex, Superstorm Sandy, and Hurricanes Harvey, Irma, and Maria, much more work needs to be done to preserve these fuel-secure generation resources that have the essential reliability and resiliency attributes needed to keep the lights on for all Americans in times of crisis—including on-site fuel supplies and the ability to provide voltage support, frequency services, operating reserves, and reactive power. As a first step, it is especially urgent to prevent premature retirements of the resources that have these critical attributes.

To this end, pursuant to section 403 of the Department of Energy Organization Act, I am making the enclosed rulemaking proposal for consideration and final action by the Commission pursuant to its authority under sections 205 and 206 of the Federal Power Act. Distorted price signals in the Commission-approved organized markets have resulted in under-valuation of grid reliability and resiliency benefits provided by traditional baseload resources, such as coal and nuclear. The rule will ensure that each eligible reliability and resiliency resource will recover its fully allocated costs and thereby continue to provide the energy security on which our nation relies. The Commission is required to take final action on this proposal in an expeditious manner in accordance with the reasonable time limits specified in the enclosed Notice of Proposed Rulemaking (NOPR).

The Resiliency of the Electric Grid—and Our National Security—is In Jeopardy

Ensuring that American families and their businesses have access to reliable, resilient and affordable electricity is vital to the economy, national security and quality of life. From heating homes in the winter to cooling them in the summer, providing lighted streets so people can walk safely at night, powering machines and technology that create jobs, and connecting us through smart phones and the internet—electricity is a key driver of America's economic prosperity and the basic necessities of life. Our economy, government and national defense all depend on electricity. Therefore, ensuring a reliable and resilient electric supply and corresponding supply chain are vital to national security.

There Have Been Significant Retirements of Traditional Baseload Generation

Market changes are resulting in a significant loss of traditional baseload generation. According to the Department of Energy's January 2017 *Quadrennial Energy Review* (January 2017 QER):

> Currently, the changing electricity sector is causing the closure of many coal and nuclear plants in a shift from recent trends. From 2000 through 2009, power plant retirements were dominated by natural gas steam turbines. Over the past 6 years (2010–2015), power plant retirements were dominated by coal plants (37 GW), which accounted for over 52 percent of recently retired power plant capacity. Over the next 5 years (between 2016 and 2020), 34.4 GW of summer capacity is planned to be retired, and 79 percent of this planned retirement capacity are coal and natural gas plants (49 percent and 30 percent, respectively). The next largest set of planned retirements are nuclear plants (15 percent).[1]

The Department of Energy's *Staff Report to the Secretary on Electricity Markets and Reliability* (DOE Staff Report)[2] also discusses the large number of traditional baseload units that have retired or are scheduled to retire:

- Between 2002 and 2016, 531 coal generating units representing approximately 59,000 MW of generation capacity retired from the U.S. generation fleet.[3]
- EIA reported that coal-fired power plants made up more than 80 percent of the 18,000 MW of electric generating capacity that retired in 2015.[4]
- It is anticipated that approximately 12,700 MW of coal will retire through 2020.[5]

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[1] *Transforming the Nation's Electricity System: the Second Installment of the Quadrennial Energy Review*, January 6, 2017 (2017 QER), at 3-73.

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[5] U.S. Energy Information Administration (EIA), *Monthly Update to the Annual Electric Generator Report*, Form EIA-860m, June 2017, https://www.eia.gov/electricity/data/eia860m/.

- Between 2002 and 2016, 4,666 MW of nuclear generating capacity was announced for retirement, or approximately 4.7 percent of the U.S. total.[6]
- Eight reactors representing 7,167 MW of nuclear capacity (7.2 percent of U.S. nuclear capacity and 0.6 percent of total U.S. generating capacity) have announced retirement plans since 2016. This does not include seven reactors that averted early retirement through state action.[7]

The 2014 Polar Vortex Exposed Problems With the Resiliency of the Electric Grid

In early 2014, the Polar Vortex (a band of very cold weather spread across much of the eastern United States) created record-high winter peak electric demand for heating and equally high demand for natural gas for residential heating. During the Polar Vortex, PJM Interconnection ("PJM")[8] struggled to meet demand for electricity because a significant amount of generation was not available to run. The loss of generation capacity could have been catastrophic, but a number of coal plants that were scheduled for retirement were dispatched to meet the need for electricity:

> American Electric Power reported that it deployed 89 percent of its coal units scheduled for retirement in 2014 to meet demand during the Polar Vortex, and Southern Company reported using 75 percent of its coal units scheduled for closure. Using these retiring units enabled utilities to meet customer demand during a period when already limited natural gas resources were diverted from electricity production to meet residential heating needs. Once retired, however, these units will not be available for the next unseasonably cold winter.[9]

Likewise, nuclear power plants "performed extremely well during the Polar Vortex, with an average capacity factor of 95 percent."[10]

Sixty-five million people within the PJM footprint could have been affected if these traditional baseload units were not available. The 2014 Polar Vortex was a warning that the current and scheduled retirements of these fuel-secure units could threaten the reliability and resiliency of the electric grid.[11]

Regulated Wholesale Power Markets Are Not Adequately Pricing Resiliency Attributes of Baseload Power

There is a growing recognition that Commission-approved organized markets do not necessarily pay generators for all the attributes that they provide to the grid, including resiliency. Because wholesale pricing in those markets does not adequately consider or accurately value those benefits, generation units that provide the benefits are often not fully compensated for them.

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[6] DOE *Staff Report* at 29.
[7] DOE *Staff Report* at 30.
[8] PJM Interconnection is the regional transmission organization ("RTO") serving thirteen states and the District of Columbia.
[9] DOE *Staff Report* at 98 (internal citations omitted).
[10] DOE *Staff Report* at 95 (internal citations omitted).
[11] DOE *Staff Report* at 98-99, 118.

The January 2017 QER summarizes the problem of how Commission-approved wholesale markets are not adequately pricing resiliency attributes of traditional baseload generation:

> Reliability investments are typically incorporated into ratemaking processes for all electric utilities. Supplementary investments for recovery from outage events also are handled through established ratemaking processes. Resilience requirements tend to be valued as contributions to reliability and incorporated as part of ratemaking processes. These processes are more easily executed in structures that are traditional end-to-end, vertically integrated electricity delivery services; other market structures complicate reliability and resilience investment decision-making. Short-run markets may not provide adequate price signals to ensure long-term investments in appropriately configured capacity. Also, resource valuations tend not to incorporate superordinate network and/or social values such as enhancing resilience into resource or . . . investment decision making. The increased importance of system resilience to overall grid reliability may require adjustments to market mechanisms that enable better valuation.[12]

A recent study by IHS Markit amplifies the same point: "the increasing cost of ensuring power system resilience is exposing the problem that some current wholesale market price formation rules do not fully compensate generating resources for providing the desired power system supply resiliency."[13]

Yet adequately compensating generating resources for ensuring a resilient grid and our national security does not mean that the costs of maintaining our grid will necessarily increase. In fact, as the IHS Markit study also concludes, preservation of traditional baseload resources benefits consumers: "The current diversified US electric supply portfolio lowers the cost of electricity production by about $114 billion per year and lowers the average retail price of electricity by 27%" compared with a "less efficient diversity case" involving "no meaningful contributions from coal or nuclear resources."[14] Thus, this rule will ensure both a resilient grid and affordable electricity to drive economic prosperity.

NERC Warns That Premature Retirements Of Fuel-Secure Generation Threaten the Reliability and Resiliency of the Bulk Power System

The North American Electric Reliability Corporation (NERC) (the FERC-designated Electric Reliability Organization), whose mission is to assure the reliability and security of the bulk power system in North America, states:

> The North American electric power system is undergoing a rapid and significant transformation with ongoing retirements of fossil-fired and nuclear capacity, as

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[12] 2017 *QER*, at 4-41 (emphasis added).
[13] IHS Markit, *Ensuring Resilient and Efficient Electricity Generation: The Value of the Current Diverse US power Supply Portfolio*, at 8.
[14] Id. at 4-5.

> well as growth in natural gas, wind, and solar resources. This shift is caused by several drivers, such as federal, state, and provincial policies, low natural gas prices, electricity market forces, and integration of both distributed and utility-scale renewable resources. The changing resource mix is altering the operating characteristics of the bulk power system (BPS). These changing characteristics must be well understood and properly managed in order to assure continued reliability and ensure resiliency.[15]

Specifically, NERC explains, "Coal-fired and nuclear generation have the added benefits of high availability rate, low forced outages, and secured on-site fuel. Many months of on-site fuel allow these units to operate in a manner independent of supply chain disruptions."[16]

As a consequence, NERC warns, "Premature retirements of fuel secure baseload generating stations reduces resilience to fuel supply disruptions."[17]

The DOE Staff Report Made Clear the Challenges to the Grid and That Resiliency Must Be Addressed

The DOE Staff Report confirms these observations and exposes the potential challenges and threats to the reliability and resiliency of the electric grid, as well as the economic hardship faced by some of the most resilient types of generation. Among other things, the DOE Staff Report warns that premature retirements of fuel-secure resources impose serious risks:

> Ultimately, the continued closure of traditional baseload power plants calls for a comprehensive strategy for long-term reliability and resilience. States and regions are accepting *increased risks* that could affect the future reliability and resilience of electricity delivery for consumers in their regions. Hydropower, nuclear, coal, and natural gas power plants provide ERS ["essential reliability services"] and fuel assurance critical to system resilience. A continual comprehensive regional and national review is needed to determine how a portfolio of domestic energy resources can be developed to ensure grid reliability and resilience.[18]

The DOE Staff Report also recognizes that "system fuel supply chain disruptions can impact many generators during a single widespread fuel shortage event," and that "[n]uclear and coal plants typically have advantages associated with onsite fuel storage...."[19] In light of these facts, the DOE Staff Report calls for prompt action:

> Markets need further study and reform to address future services essential to grid reliability and resilience. System operators are working toward recognizing,

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[15] NERC Letter to Secretary of Energy Rick Perry, May 9, 2017, Attachment "Synopsis of NERC Reliability Assessments" (Synopsis) at 1 (emphasis added).
[16] NERC, Synopsis at 2.
[17] NERC, Synopsis at 3.
[18] DOE *Staff Report* at 14 (emphasis added).
[19] DOE *Staff Report*, at 91. For example, "coal plants . . . maintain onsite coal stockpiles to accommodate both normal variance in deliveries and the possibility of a major supply disruption. Coal stockpiles have recently been slightly smaller than historical averages, while days of burn have increased slightly relative to historic averages from the 70-80 range to the 85-100-day range." *Id.*, at 95.

> defining, and compensating for resource attributes that enhance reliability and resilience (on both the supply and demand side). However, further efforts should reflect the *urgent* need for clear definitions of reliability- and resilience-enhancing attributes and should *quickly establish* the market means to value or the regulatory means to provide them.[20]

One of the DOE Staff Report's chief policy recommendations to protect the resiliency of the electric grid is to correct distortions in price formation in the organized markets:

> FERC should expedite its efforts with states, RTO/ISOs, and other stakeholders to improve energy price formation in centrally-organized wholesale electricity markets. After several years of fact finding and technical conferences, the record now supports energy price formation reform, such as the proposals laid out by PJM and others.[21]

FERC is Aware Of the Problem and Must Take Action

As is well known, over the past several years, the Commission has developed an extensive record on price formation in the Commission-approved ISOs and RTOs. The Commission has recognized that there are deficiencies in the way the regulated wholesale power markets price power (i.e., energy, capacity, and ancillary services) and that these deficiencies are undermining reliability and resiliency.

Beginning in 2013, the Commission recognized the changing mix of generation resources, determined that the existing capacity markets were not providing a sufficiently reliable supply of electricity, predicted the loss of traditional baseload generation, and sought input from the public through proceedings on price formation in the organized markets. In a 2013 technical conference, FERC explained:

> The purpose of the technical conference is to consider how current centralized capacity market rules and structures are supporting the procurement and retention of resources necessary to meet future reliability and operational needs. Since their establishment, centralized capacity markets have continued to evolve. Meanwhile, the mix of resources is also evolving in response to changing market conditions, including low natural gas prices, state and federal policies encouraging the entry of renewable resources and other specific technologies, and the retirement of aging generation resources. This changing resource mix may result in future reliability and operational needs that are different than those of the past.[22]

Nevertheless, the fundamental challenge of maintaining a resilient electric grid has not been sufficiently addressed by the Commission or the Commission-approved ISOs and RTOs, and the lack of a quorum at the Commission has undoubtedly thwarted the issuance of rules. But the continued loss of baseload generation with on-site fuel supplies, such as coal and nuclear,

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[20] *Id.*, at 10 (emphasis added).
[21] *Id.*, at 126 (internal citations omitted).
[22] FERC, *Centralized Capacity Markets in Regional Transmission Organizations and Independent System Operators*, Docket No. AD13-7-000, at 1.

must be stopped. These generation resources are necessary to maintain the resiliency of the electric grid. As FERC already regulates the organized wholesale power markets, it must adopt rules requiring the Commission-approved ISOs and RTOs to reduce the chronic distortion of those markets threatening the resilience of the nation's electricity system.

In light of these threats to grid reliability and resilience, it is the Commission's immediate responsibility to take action to ensure that the reliability and resiliency attributes of generation with on-site fuel supplies are fully valued and in particular to exercise its authority to develop new market rules that will achieve this urgent objective.

Failure to act expeditiously would be unjust, unreasonable, and contrary to the public interest.

Proposed Rule To Protect the Resiliency Of the Electric Grid

Therefore, pursuant to my authority under section 403 of the Department of Energy Organization Act to propose rules for adoption by the Commission, I am proposing the enclosed rule, which will be published in the Federal Register.

The proposed rule requires the Commission-approved organized markets to develop and implement market rules that accurately price generation resources necessary to maintain the reliability and resiliency of our Nation's electric grid. Specifically, the rule allows for the recovery of costs of fuel-secure generation units that make our grid reliable and resilient. Such resources provide reliable capacity, resilient generation, frequency and voltage support, on-site fuel inventory—in addition to providing power for our basic needs, quality of life, and robust economy. The rule allows the full recovery of costs of certain eligible units physically located within the Commission-approved organized markets. Eligible units must also be able to provide essential energy and ancillary reliability services and have a 90-day fuel supply on site in the event of supply disruptions caused by emergencies, extreme weather, or natural or man-made disasters. These resources must be compliant with all applicable environmental regulations and are not subject to cost-of-service rate regulation by any State or local authority. The rule requires the organized markets to establish just and reasonable rate tariffs for the full recovery of costs and a fair rate of return.

Now that a quorum has been restored at the Commission, I am confident that the Commission will act in an expeditious manner to address this urgent issue. To that end, in the enclosed NOPR, I direct the Commission to consider and complete final action on the rule proposed therein within 60 days from the date of the publication of the NOPR in the Federal Register. As an alternative, I urge the Commission to issue the proposed rule as an interim final rule, effective immediately, with provision for later modifications after consideration of public comments. Further, I am directing that any final rule adopting this proposal take effect within 30 days of publication of such final rule in the Federal Register, and I am proposing that each Commission-approved RTO and ISO submit a compliance filing within 15 days of the effective date of the rule.

Conclusion

It is the policy of this Administration to support an "all of the above" approach to energy development and use. We need to properly recognize the value of each resource, being mindful of its role in our national defense, economic security, and pursuit of environmental outcomes. In particular, we must account for the value of on-site fuel storage capability. Moreover, because of the long lead time to secure and maintain these resources, we must also ensure that the technical expertise and materials are readily available. If, for example, we lose our educated workforce or no longer have the ability to build and operate our baseload plants because of short-sighted policies, it will not only weaken our workforce, but will threaten our energy dominance and national security.

On behalf of the American people, I look forward to your immediate action on the pressing issue of protecting the resiliency of the electric grid.

Sincerely,

Rick Perry

Rick Perry

DEPARTMENT OF ENERGY

18 CFR Part 35

Docket No. RM17-3-000

Grid Resiliency Pricing Rule

AGENCY: Department of Energy.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: Pursuant to section 403 of the Department of Energy Organization Act (DOE Act), the Secretary of Energy (Secretary) is proposing a rule for final action by the Federal Energy Regulatory Commission (Commission or FERC). The Secretary is proposing the Commission exercise its authority under sections 205 and 206 of the Federal Power Act (FPA), to establish just and reasonable rates for wholesale electricity sales. Under the proposal, the Commission will impose rules on Commission-approved independent system operators (ISOs) and regional transmission organizations (RTOs) to ensure that certain reliability and resilience attributes of electric generation resources are fully valued. The Secretary is directing the Commission to take final action on this proposal within 60 days of publication of this notice in the Federal Register or, in the alternative, to issue the rule as an interim final rule immediately, with provision for later modifications after consideration of public comments. The Secretary further directs that any final rule adopting this proposal take effect within 30 days of publication of such final rule in the Federal Register and proposes that each ISO and RTO subject to the rule shall submit a compliance filing within 15 days of the effective date of such final rule.

DATES: The Commission is directed either to take final action by **[DATE 60 days from publication of this Notice]** or to issue the proposed rule as an interim final rule. Public comment is due either **[DATE 45 days from publication of this Notice]** or according to a schedule to be published by the Commission.

ADDRESSES: Comments, identified by docket number, may be filed in the following ways:

- Electronic Filing through http://www.ferc.gov. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format.
- Mail/Hand Delivery: Those unable to file electronically may mail or hand-deliver comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426.

Instructions: For detailed instructions on submitting comments and additional information on the rulemaking process, see the Comment Procedures Section of this document.

FOR FURTHER INFORMATION CONTACT: U.S. Department of Energy, 1000 Independence Avenue SW, Washington, DC 20585.

SUPPLEMENTARY INFORMATION:

Table of Contents

[To be inserted by Federal Register]

I. Statutory Background

Section 403 of the DOE Act authorizes the Secretary of Energy to propose rules for Commission action regarding certain Commission functions, including its electricity rate-related functions under sections 205 and 206 of the Federal Power Act, and to set reasonable time limits for Commission completion of the proposed action. Section 403(a) provides for the initiation of rulemaking proceedings by either the Secretary or the Commission. In the exercise of this authority, the Commission proposes rules by publishing Notices of Proposed Rulemaking (NOPR) in the Federal Register. The Secretary has likewise exercised his section 403 authority by publishing NOPRs in the Federal Register. This authority was first exercised by the Secretary in 1979 by publication of a NOPR ("Transportation Certificates for Natural Gas," 44 Fed. Reg. 17644, March 22, 1979). The Secretary has subsequently acted under section 403 on several occasions by publication of a NOPR in the Federal Register. By proposing a rule in this manner, the Secretary enables the Commission to proceed directly to the consideration of, and final action on, the proposal and eliminates the need for the Commission to order or publish its own separate rulemaking proposal.

Independent of the Secretary's action under section 403(a), FERC has full authority to establish the rules set forth in this notice. Specifically, FERC has authority to establish just and reasonable rates, terms, and conditions for wholesale electricity sales under sections 205 and 206 of the Federal Power Act, and FERC has discretion to do so by means of a rulemaking pursuant to section 403(c), which authorizes FERC to use rulemaking procedures to conduct its Federal Power Act functions relating to rates and charges. *Transmission Access Policy Study Group v. F.E.R.C.*, 225 F.3d 667, 688 (D.C. Cir. 2000), aff'd 535 U.S. 1 (2002). FERC has on numerous occasions imposed market rules on ISOs and RTOs. See 18 CFR part 35.

Furthermore, section 403(b) requires that FERC "shall consider and take final action on any proposal made by the Secretary [under subsection (a)] in an expeditious manner in accordance with such reasonable time limits as may be set by the Secretary for the completion of action by the Commission on any such proposal." The Secretary is therefore authorized to direct the Commission to consider and take final action within the reasonable time limits the Secretary establishes in this Notice. Given the extensive record the Commission has already developed on the subject matter of this Notice, the time limit for final action provided herein allows adequate time for the Commission to receive and consider public comments.

II. Discussion of the Proposed Rule

The resiliency of the nation's electric grid is threatened by the premature retirements of power plants that can withstand major fuel supply disruptions caused by natural or man-made disasters and, in those critical times, continue to provide electric energy, capacity, and essential grid reliability services. These fuel-secure resources are indispensable for the reliability and

resiliency of our electric grid—and therefore indispensable for our economic and national security. It is time for the Commission to issue rules to protect the American people from energy outages expected to result from the loss of this fuel-secure generation capacity.

A. Affordable, Reliable and Resilient Electricity is Vital to the Economic and National Security of the United States and its People

Ensuring that American families and businesses have access to reliable, resilient and affordable electricity is vital to the economy, national security, and quality of life. From heating homes in the winter to cooling them in the summer, providing lighted streets so people can walk safely at night, powering machines and technology that create jobs, and connecting us through smart phones and the internet—electricity is a key driver of America's economic prosperity and the basic necessities of life. The American economy, government and national defense all depend on electricity. Therefore, ensuring a reliable and resilient electric supply and corresponding supply chain are also vital to national security.

The sheer size and impact of the electricity market on our economy cannot be overstated. According to the Department of Energy's January 2017 *Quadrennial Energy Review* (January 2017 QER):

> In the United States, there are around 7,700 operating power plants that generate electricity from a variety of primary energy sources; 707,000 miles of high-voltage transmission lines; more than 1 million rooftop solar installations; 55,800 substations; 6.5 million miles of local distribution lines; and 3,354 distribution utilities delivering electricity to 148.6 million customers. The total amount of money paid by end users for electricity in 2015 was about $400 billion. This drives an $18.6 trillion U.S. gross domestic product and significantly influences global economic activity totaling roughly $80 trillion.[1]

B. There Have Been Significant Retirements of Fuel-Secure Generation

Market changes are resulting in a significant loss of fuel-secure generation. According to the January 2017 QER:

> Currently, the changing electricity sector is causing the closure of many coal and nuclear plants in a shift from recent trends. From 2000 through 2009, power plant retirements were dominated by natural gas steam turbines. Over the past 6 years (2010–2015), power plant retirements were dominated by coal plants (37 GW), which accounted for over 52 percent of recently retired power plant capacity. Over the next 5 years (between 2016 and 2020), 34.4 GW of summer capacity is planned to be retired, and 79 percent of this planned retirement capacity are coal and natural gas plants (49 percent and 30 percent, respectively). The next largest set of planned retirements are nuclear plants (15 percent).[2]

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The "Staff Report to the Secretary on Electricity Markets and Reliability" ("DOE Staff Report")[3] also discusses the large number of fuel-secure plants that have retired or are scheduled to retire:

- Between 2002 and 2016, 531 coal generating units representing approximately 59,000 MW of generation capacity retired from the U.S. generation fleet.[4]
- EIA reported that coal-fired power plants made up more than 80 percent of the 18,000 MW of electric generating capacity that retired in 2015.[5]
- It is anticipated that approximately 12,700 MW of coal generation will retire through 2020.[6]
- Between 2002 and 2016, 4,666 MW of nuclear generating capacity was announced for retirement, or approximately 4.7 percent of the U.S. total.[7]
- Eight reactors representing 7,167 MW of nuclear capacity (7.2 percent of U.S. nuclear capacity and 0.6 percent of total U.S. generating capacity) have announced retirement plans since 2016. This does not include seven reactors that averted early retirement through state action.[8]

C. The 2014 Polar Vortex Exposed Problems With the Resiliency of the Electric Grid

In early 2014, the Polar Vortex (a band of very cold weather spread across much of the eastern and central United States) created record-high winter peak electric demand for heating and equally high demand for natural gas for residential heating. During the Polar Vortex, PJM Interconnection ("PJM")[9] struggled to meet demand for electricity because a significant amount of generation was not available to run. According to the DOE Staff Report, the loss of generation capacity could have been catastrophic, but a number of fuel-secure plants that were scheduled for retirement were called upon to meet the need for electricity.

> American Electric Power reported that it deployed 89 percent of its coal units scheduled for retirement in 2014 to meet demand during the Polar Vortex, and Southern Company reported using 75 percent of its coal units scheduled for closure. Using these retiring units enabled utilities to meet customer demand during a period when already limited natural gas resources were diverted from

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Likewise, the DOE Staff Report notes that "overall nuclear generators performed extremely well during the Polar Vortex, with an average capacity factor of 95 percent."[11]

Sixty-five million people within the PJM footprint could have been affected if these units were not available. The 2014 Polar Vortex was a warning that the current and scheduled retirements of fuel-secure plants could threaten the reliability and resiliency of the electric grid.[12]

D. Regulated Wholesale Power Markets Are Not Adequately Pricing Resiliency Attributes of Fuel-Secure Power

There is a growing recognition that organized markets do not necessarily pay generators for all the attributes that they provide to the grid, including resiliency. Because wholesale pricing in those markets does not adequately consider or accurately value those benefits, fuel-secure generation resources are often not compensated for those benefits.

The January 2017 QER summarizes the problem of how regulated wholesale markets are not adequately pricing resiliency attributes of fuel-secure generation.

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A recent study by IHS Markit amplifies the same point: "the increasing cost of ensuring power system resilience is exposing the problem that some current wholesale market price formation rules do not fully compensate generating resources for providing the desired power system supply resiliency."[14]

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E. The Preservation of Generation Diversity Will Benefit Consumers

The IHS Markit study also concludes that preservation of generation diversity provided by fuel-secure resources benefits consumers: "The current diversified US electric supply portfolio lowers the cost of electricity production by about $114 billion per year and lowers the average retail price of electricity by 27%" compared with a "less efficient diversity case" involving "no meaningful contributions from coal or nuclear resources."[15]

F. NERC Warns That Premature Retirements of Fuel-Secure Generation Threaten the Reliability and Resiliency of the Bulk Power System

The North American Electric Reliability Corporation (NERC) (the FERC-designated Electric Reliability Organization), whose mission is to assure the reliability and security of the bulk power system in North America, states:

> The North American electric power system is undergoing a rapid and significant transformation with ongoing retirements of fossil-fired and nuclear capacity, as well as growth in natural gas, wind, and solar resources. This shift is caused by several drivers, such as federal, state, and provincial policies, low natural gas prices, electricity market forces, and integration of both distributed and utility-scale renewable resources. The changing resource mix is altering the operating characteristics of the bulk power system (BPS). These changing characteristics must be well understood and properly managed in order to assure continued reliability and ensure resiliency.[16]

Specifically, "Coal-fired and nuclear generation have the added benefits of high availability rate, low forced outages, and secured on-site fuel. Many months of on-site fuel allow these units to operated in a manner independent of supply chain disruptions."[17]

As a consequence, NERC warns, "Premature retirements of fuel secure baseload generating stations reduces resilience to fuel supply disruptions."[18]

G. The DOE Staff Report Made Clear the Challenges to the Grid and That Resiliency Must Be Addressed

The DOE Staff Report confirms these observations and exposes the potential challenges and threats to the reliability and resiliency of the electric grid, as well as the economic hardship faced by some of the most resilient types of generation. Among other things, the DOE Staff Report warns that premature retirements of fuel-secure resources impose serious risks:

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[15] Id. at 4-5.
[16] NERC Letter to Secretary of Energy Rick Perry, May 9, 2017, Attachment "Synopsis of NERC Reliability Assessments" (Synopsis) at 1.
[17] NERC, Synopsis at 2.
[18] NERC, Synopsis at 3.

> Ultimately, the continued closure of traditional baseload power plants calls for a comprehensive strategy for long-term reliability and resilience. States and regions are accepting *increased risks* that could affect the future reliability and resilience of electricity delivery for consumers in their regions. Hydropower, nuclear, coal, and natural gas power plants provide ERS [("essential reliability services")] and fuel assurance critical to system resilience. A continual comprehensive regional and national review is needed to determine how a portfolio of domestic energy resources can be developed to ensure grid reliability and resilience.[19]

The DOE Staff Report also recognizes that "system fuel supply chain disruptions can impact many generators during a single widespread fuel shortage event," and that "Nuclear and coal plants typically have advantages associated with onsite fuel storage...."[20] In light of these facts, the DOE Staff Report calls for prompt action:

> Markets need further study and reform to address future services essential to grid reliability and resilience. System operators are working toward recognizing, defining, and compensating for resource attributes that enhance reliability and resilience (on both the supply and demand side). However, further efforts should reflect the *urgent* need for clear definitions of reliability- and resilience-enhancing attributes and should *quickly establish* the market means to value or the regulatory means to provide them.[21]

The DOE Staff Report's first recommendation for protecting the resiliency of the electric grid is to correct distortions in price formation in the organized markets:

> FERC should expedite its efforts with states, RTO/ISOs, and other stakeholders to improve energy price formation in centrally-organized wholesale electricity markets. After several years of fact finding and technical conferences, the record now supports energy price formation reform, such as the proposals laid out by PJM and others.[22]

H. Congress is Concerned About the Potential Loss of Valuable Generation Resources

In July 2015, the chairmen of the Senate Committee on Energy and Natural Resources, the House Committee on Energy and Commerce, and the House Subcommittee on Energy and Power, sent correspondence to the Commission about challenges in the Commission-approved organized electricity markets.[23] The chairmen expressed their concern that "[v]aluable baseload

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[19] "Staff Report to the Secretary on Electricity Markets and Reliability," U.S. Department of Energy, August 2017 at 14 (emphasis added).

[20] DOE *Staff Report*, at 91. For example, "coal plants . . . maintain onsite coal stockpiles to accommodate both normal variance in deliveries and the possibility of a major supply disruption. Coal stockpiles have recently been slightly smaller than historical averages, while days of burn have increased slightly relative to historic averages from the 70-80 range to the 85-100-day range." *Id.*, at 95.

[21] *Id.*, at 10 (emphasis added).

[22] *Id.*, at 126 (internal citations omitted).

[23] Letter from Fred Upton, Lisa Murkowski, and Ed Whitfield, U.S. Congress, to Norman Bay, Chairman, FERC (July 8, 2015).

power plants in these markets, including reliable nuclear and coal-[fired] plants, are facing premature retirement."[24]

More specifically, the Chairmen's letter stated: "There are growing indications that owners and operators of major baseload power plants are facing imminent decisions regarding their continued economic viability"[25] and "broad scale premature retirements of otherwise performing baseload units because of market rules—rather than market forces—would represent failure of regulation."[26] The letter made clear that electricity market prices for energy and capacity should reflect the "true marginal cost of supply, promote necessary investment, and produce meaningful price signals that clearly indicate where new supply and investment are needed . . . ."[27]

I. The FERC is Cognizant of the Problem and Has the Necessary Information On Which to Act Expeditiously

Over the past several years, the Commission has developed an extensive record on price formation in the Commission-approved ISOs and RTOs. The Commission has recognized that there are deficiencies in the way the regulated wholesale power markets price power (i.e., energy, capacity, and ancillary services) and that these deficiencies are undermining reliability and resiliency.

Beginning in June 2013, the Commission recognized the changing mix of generation resources, determined that existing capacity markets were not providing a sufficiently reliable supply of electricity, predicted the loss of fuel-secure generation, and sought input from the public through proceedings on price formation in the organized markets. In a 2013 technical conference, FERC explained:

> The purpose of the technical conference is to consider how current centralized capacity market rules and structures are supporting the procurement and retention of resources necessary to meet future reliability and operational needs. Since their establishment, centralized capacity markets have continued to evolve. Meanwhile, the mix of resources is also evolving in response to changing market conditions, including low natural gas prices, state and federal policies encouraging the entry of renewable resources and other specific technologies, and the retirement of aging generation resources. This changing resource mix may result in future reliability and operational needs that are different than those of the past.[28]

In December 2014, PJM requested that the Commission issue an order approving PJM's revisions to its capacity market rules to require resources participating in the capacity market to

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[24] *Id.*
[25] *Id.*
[26] *Id.*
[27] *Id.*
[28] FERC, Centralized Capacity Markets in Regional Transmission Organizations and Independent System Operators, Docket No. AD13-7-000, p. 1.

honor contractual commitments to deliver electricity at any time of the year.[29] The Commission determined that the existing capacity market was not providing a sufficiently reliable supply of electricity and, to remedy this urgent shortfall, accepted PJM's proposed market rule changes. FERC's order was recently upheld by the D.C. Circuit in *Advanced Energy Management Alliance v. FERC*, D.C. Cir. (June 30, 2017).

A year after its initial 2013 proceeding, the Commission initiated a proceeding in June 2014, entitled "Price Formation in Energy and Ancillary Services Markets in Regional Transmission Organizations and Independent System Operators" ("Price Formation Proceeding") to evaluate issues regarding price formation in the energy and ancillary services markets operated by RTOs and ISOs.[30] In a December 2014 staff analysis for this proceeding, the FERC Staff observes that "All RTOs and ISOs have identified a class of reliability and operational issues that are incorporated into the day-ahead and real-time market processes but which are not reflected in day-ahead and real-time energy and ancillary services prices."[31]

The Price Formation Proceeding resulted in a number of additional proceedings and rulemakings, some of which are described below:

- In November 2016, under Order No. 825, "Settlement Intervals and Shortage Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators," the Commission directed reforms to settlement intervals and shortage pricing to more accurately compensate resources based on the value they provide the system.[32]

- In November 2016, pursuant to a NOPR entitled "Essential Reliability Services and the Evolving Bulk-Power System—Primary Frequency Response," the Commission proposed a rule to require all newly interconnecting large and small generating facilities, both synchronous and non-synchronous, to install and enable primary frequency response capability as a condition of interconnection.[33]

- In December 2016, under Order 831, "Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators," the Commission raised existing caps on energy market offers and allowed those higher-price offers to set market clearing prices.[34]

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[29] 151 FERC ¶ 61,208, "*PJM Interconnection, L.L.C.*,Order on Proposed Tariff Revisions" (2015); *rehearing denied*, PJM Interconnection, L.L.C., Order on Rehearing and Compliance, 155 FERC ¶ 61,157 (2016).
[30] "Price Formation in Energy and Ancillary Services Markets in Regional Transmission Organizations and Independent System Operators", Docket No. AD14-14-000, June 2014.
[31] "Staff Analysis of Operator-Initiated Commitments in RTO and ISO Markets", Price Formation in Organized Wholesale Electricity Markets, [Docket No. AD14-14-000], December 2014 at 5.
[32] 155 FERC ¶ 61,276; 18 CFR Part 35 [Docket No. RM15-24-000, Order No. 825] Settlement Intervals and Shortage Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators (Issued June 16, 2016).
[33] 157 FERC ¶ 61,122, Essential Reliability Services and the Evolving Bulk-Power System—Primary Frequency Response, Notice of Proposed Rulemaking (November 17, 2016).
[34] 157 FERC ¶ 61,115, 18 CFR Part 35 [Docket No. RM16-5-000; Order No. 831] Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators (November 17, 2016).

- In December 2016, pursuant to a NOPR entitled "Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators," the Commission proposed revising its regulations to require RTOs and ISOs to incorporate market rules that properly price fast-start resources.[35] As stated in the NOPR, the proposed Fast-Start Pricing "should lead to prices that more transparently reflect the marginal cost of serving load, which will reduce uplift costs and thereby improve price signals to support efficient investments."[36]

- In January 2017, the Commission issued a NOPR entitled "Uplift Cost Allocation and Transparency in Markets Operated by Regional Transmission Organizations and Independent System Operators."[37] Among other things, this proposed rule would require that "each regional transmission organization (RTO) and independent system operator (ISO) that currently allocates the costs of real-time uplift due to deviations should allocate such real-time uplift costs only to those market participants whose transactions are reasonably expected to have caused the real-time uplift costs."[38] This NOPR establishes that the goals of the price formation in the proceeding are to:

  (1) maximize market surplus for consumers and suppliers;
  (2) provide correct incentives for market participants to follow commitment and dispatch instructions, make efficient investments in facilities and equipment, and maintain reliability;
  (3) provide transparency so that market participants understand how prices reflect the actual marginal cost of serving load and the operational constraints of reliably operating the system; and
  (4) ensure that all suppliers have an opportunity to recover their costs.[39]

Through these proceedings, the Commission has developed an extensive record on price formation in the Commission approved ISOs and RTOs. Nevertheless, the fundamental challenge of maintaining a resilient electric grid has not been sufficiently addressed by the Commission or the ISOs and RTOs. The continued loss of fuel-secure generation must be stopped. These generation resources are necessary to maintain the resiliency of the electric grid. FERC must adopt rules requiring the Commission-approved ISOs and RTOs to reduce the chronic distortion of the markets that is threatening the resilience of the Nation's electricity system.

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[35] 157 FERC ¶ 61,213, 18 CFR Part 35 [Docket No. RM17-3-000] Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators (December 15, 2016).
[36] 157 FERC ¶ 61,213, 18 CFR Part 35 [Docket No. RM17-3-000] Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators (December 15, 2016), at 1.
[37] 158 FERC ¶ 61,047 Federal Energy Regulatory Commission, 18 CFR Part 35 [Docket No. RM17-2-000] Uplift Cost Allocation and Transparency in Markets Operated by Regional Transmission Organizations and Independent System Operators (January 19, 2017).
[38] Id. at 1.
[39] 158 FERC ¶ 61,047 Federal Energy Regulatory Commission, 18 CFR Part 35 [Docket No. RM17-2-000] Uplift Cost Allocation and Transparency in Markets Operated by Regional Transmission Organizations and Independent System Operators (January 19, 2017) at 5, para 6.

III. Proposal

In light of these threats to grid reliability and resilience, it is the Commission's immediate responsibility to take action to ensure that the reliability and resiliency attributes of generation with on-site fuel supplies are fully valued and in particular to exercise its authority to develop new market rules that will achieve this urgent objective.

The recent Polar Vortex, as well as the devastation from Superstorm Sandy and Hurricanes Harvey, Irma, and Maria, reinforces the urgency that the Commission must act now. Moreover, the Commission should take action before the winter heating season begins so as to prevent the potential failure of the grid from the loss of fuel-secure generation—as almost happened during the 2014 Polar Vortex.

As outlined above, the Commission has developed a vast record of comments, hearings, and technical conferences on price formation matters, but has not done enough to address the crisis at hand. Immediate action is necessary to ensure fair compensation in order to stop the imminent loss of generators with on-site fuel supplies, and thereby preserve the benefits of generation diversity and avoid the severe consequences that additional shut-downs would have on the electric grid.

Over the past few years, the Commission has been considering various aspects of accurate price formation within Commission-approved organized markets in its ongoing price formation docket. Throughout these proceedings the Commission has declared that a key goal of price formation is to "ensure that all suppliers have an opportunity to recover their costs."[40] The Commission has conducted technical conferences, sought and received significant stakeholder and public input, and issued and approved several market rule changes to accomplish these goals.

Today, pursuant to the Secretary's authority under Section 403 of the Department of Energy Organization Act (42 USC 7173), the Secretary is directing the Commission to issue a final rule requiring its organized markets to develop and implement market rules that accurately price generation resources necessary to maintain the reliability and resiliency of our Nation's bulk power system.

The proposed rule allows for the recovery of costs of fuel-secure generation units frequently relied upon to make our grid reliable and resilient. Such resources provide reliable capacity, resilient generation, frequency and voltage support, on-site fuel inventory—in addition to providing power for our basic needs, quality of life, and robust economy. The rule allows the full recovery of costs of certain eligible units physically located within the Commission-approved organized markets. Eligible units must also be able to provide essential energy and ancillary reliability services and have a 90-day fuel supply on site in the event of supply disruptions caused by emergencies, extreme weather, or natural or man-made disasters. These resources must be compliant with all applicable environmental regulations and are not subject to

[40] FERC's Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators; Docket No. AD14-14-000; NOTICE INVITING POST-TECHNICAL WORKSHOP COMMENTS (January 16, 2015), Post-Technical Conference Questions for Comment at 1.

cost-of-service rate regulation by any State or local authority. The rule requires the organized markets to establish just and reasonable rate tariffs for the recovery of costs and a fair rate of return.

IV. Procedures for Completion of Final Action

a. Deadlines

Pursuant to section 403(b) of the DOE Act, the Secretary is requiring the Commission to consider and take final action on the proposed rule herein within 60 days from the date of the publication of this NOPR in the Federal Register. As an alternative, the Secretary urges the Commission to issue the rule proposed herein as an interim final rule, effective immediately, with provision for later modifications after consideration of public comments. The Secretary further directs that any final rule adopting this proposal take effect within 30 days of publication of such final rule in the Federal Register.

b. Comment Procedures

To ensure that the Commission completes final action on this proposed rule within the deadline provided, it will be necessary to provide for the solicitation and review of public comments prior to the Commission's final action. To facilitate such comment process, the Commission is invited to issue a notice providing for such process within two business days of the publication of this notice in the Federal Register. If the Commission does not do so, the following comment process will take effect:

Interested persons are invited to submit comments on the matters and issues proposed in this notice to be adopted. Comments are due **[INSERT DATE 45 days after publication in the FEDERAL REGISTER]**. Comments must refer to Commission Docket No. RM17-3-000, and must include the commenter's name, the organization they represent, if applicable, and their address in their comments.

It is encouraged that comments be filed electronically via the eFiling link on the Commission's web site at http://www.ferc.gov. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format. Commenters filing electronically do not need to make a paper filing.

Commenters that are not able to file comments electronically must send an original of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426.

All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section below. Commenters on this proposal are not required to serve copies of their comments on other commenters.

c. Compliance Filings

The Secretary further proposes that any final rule issued by the Commission pursuant to this notice shall provide that each Commission-approved RTO and ISO shall submit a compliance filing, including a revised tariff pursuant to section 205 of the Federal Power Act, within 15 days of the effective date of the final rule to demonstrate that it meets the proposed requirements set forth in any Final Rule. This compliance deadline is for each RTO and ISO to submit proposed tariff changes or otherwise demonstrate compliance with any Final Rule. Implementing the reforms required by any Final Rule in this proceeding may be a complex endeavor. However, implementation of these reforms is important to ensure rates remain just and reasonable. Therefore, it is proposed that tariff changes filed in response to a Final Rule in this proceeding must become effective no more than 15 days after compliance filings are due.

To the extent that any RTO or ISO believes that it already complies with the reforms proposed in this NOPR, the RTO or ISO would be required to demonstrate how it complies in the compliance filing required 15 days after the effective date of any Final Rule in this proceeding. To the extent that any RTO or ISO seeks to argue on compliance that its existing market rules are consistent with or superior to the reforms adopted in any Final Rule, the Commission has the ability entertain such arguments at that time.[41]

V. Statutory and Regulatory Review

Section 403(a) of the DOE Act authorizes the Secretary of Energy to propose rules with respect to any function within the jurisdiction of the Commission. Section 403(b) of that Act provides that the Commission shall have exclusive jurisdiction over such proposals. Accordingly, although the proposal is that of the Secretary of Energy, the Commission is the agency which will take final action on this proposed rulemaking. Therefore, the Commission is the appropriate agency to comply with the statutory, regulatory or Executive Order requirements which arise in connection with this rulemaking. To the extent a statute, regulation, or Executive Order requires action before the issuance of a final rule, the Commission should take such action in sufficient time to permit adoption of a final rule within the deadline for final action set forth above.

To the extent that a NOPR—in the event the Commission were to issue one—would include certain information, included below are the following:

Information Collection Statement

The Paperwork Reduction Act (PRA)[42] requires each federal agency to seek and obtain Office of Management and Budget (OMB) approval before undertaking a collection of

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[41] See, e.g., Order No. 825, FERC Stats. & Regs. ¶ 31,384 at P 72; Demand Response Compensation in Organized Wholesale Energy Markets, Order No. 745, FERC Stats. & Regs. ¶ 31,322, at P 4 & n.7, order on reh'g and clarification, Order No. 745-A, 137 FERC ¶ 61,215 (2011), reh'g denied, Order No. 745-B, 138 FERC ¶ 61,148 (2012), vacated sub nom. *Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014), rev'd & remanded sub nom. *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760 (2016).

[42] 44 U.S.C. § 3507(d).

information directed to ten or more persons or contained in a rule of general applicability. OMB regulations[43] require approval of certain information collection requirements imposed by agency rules. Upon approval of a collection of information, OMB will assign an OMB control number and an expiration date. Respondents subject to the filing requirements of an agency rule will not be penalized for failing to respond to the collection of information unless the collection of information displays a valid OMB control number.

Similar to other recently issued rules in its price formation docket, the reforms proposed in this NOPR would amend the Commission's regulations to improve the operation of organized wholesale electric power markets operated by RTOs and ISOs. The reforms proposed in this NOPR would require each RTO and ISO to implement market rules that meet certain requirements for pricing resiliency resources. The reforms proposed in this NOPR would require one-time filings of tariffs with the Commission and potential software upgrades to implement the reforms proposed in this NOPR. DOE anticipates the reforms proposed in this NOPR, once implemented, would not significantly change currently existing burdens on an ongoing basis. With regard to those RTOs and ISOs that believe that they already comply with the reforms proposed in this NOPR, they could demonstrate their compliance in the compliance filing required 15 days after the effective date of any Final Rule in this proceeding. The Commission will submit the proposed reporting requirements to OMB for its review and approval under section 3507(d) of the Paperwork Reduction Act.[44]

While the DOE expects the adoption of the reforms proposed in this NOPR to provide significant benefits, the DOE understands implementation can be a complex endeavor. Comments are sought on the accuracy of provided burden and cost estimates and any suggested methods for minimizing the respondents' burdens, including the use of automated information techniques. Specifically, detailed comments are sought on the potential cost and time necessary to implement aspects of the reforms proposed in this NOPR, including (1) hardware, software, and business processes changes; and (2) processes for RTOs/ISOs to vet proposed changes amongst their stakeholders.

Burden Estimate[45]: The DOE believes that the burden estimates below are representative of the average burden on respondents, including necessary communications with stakeholders. The estimated burden and cost for the requirements contained in this NOPR follow.[46]

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[43] 5 C.F.R. § 1320.

[44] 44 U.S.C. § 3507(d) (2012).

[45] Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a federal agency, including: ". . . (ii) Developing, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information; (iii) Developing, acquiring, installing, and utilizing technology and systems for the purpose of processing and maintaining information; (iv) Developing, acquiring, installing, and utilizing technology and systems for the purpose of disclosing and providing information . . . ." 5 C.F.R. § 1320.3(b)(1) (2016). The time, effort, and financial resources necessary to comply with a collection of information that would be incurred by persons in the normal course of their activities (e.g., in compiling and maintaining business records) will be excluded from the "burden" if the agency demonstrates that the reporting, recordkeeping, or disclosure activities needed to comply are usual and customary.

[46] This estimate is based on the Commission's estimate used by the Commission in 157 FERC ¶ 61,213, 18 CFR Part 35 [Docket No. RM17-3-000] Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators (December 15, 2016)]. For this information collection, the Commission staff

	Number of Respondents (1)	Annual Number of Responses per Respondent (2)	Total Number of Responses (1)*(2)=(3)	Average Burden Hours & Cost Per Response (4)	Total Annual Burden Hours & Total Annual Cost (3)*(4) =(5)	Cost per Respondent ($) (5)÷(1)
Tariff filing costs	6	1	6	80 hours, $5,920	480 hours, $35,520	
Implementation costs	6	1	6	3,853 hours, $285,122	23,118 hours, $1,710,732	
TOTAL (one-time in Year 1)				3,933 hours, $291,042	23,598 hours, $1,746,252	$291,042

Cost to Comply: The DOE has projected the total cost of compliance, all within six months of a Final Rule plus initial implementation, to be $1,746,252. After Year 1, the reforms proposed in this NOPR, once implemented, would not significantly change existing burdens on an ongoing basis.

Title: FERC-__-____. NOPR in RM17-3-000
Action: Proposed revisions to an information collection.
OMB Control No.: [TBD].
Respondents for this Rulemaking: RTOs and ISOs.

Frequency of Information: One-time during year one.
Necessity of Information: The DOE proposes this rule to improve competitive wholesale electric markets in the RTO and ISO regions.
Internal Review: The DOE has reviewed the proposed changes and has determined that the changes are necessary. These requirements conform to the Commission's need for efficient information collection, communication, and management within the energy industry. This estimate is based on the Commission's estimate in the NOPR for "Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators"[47] and DOE believes that the proposed NOPR is similar and would impose similar burden associated with the information collection requirements.

estimates that industry is similarly situated in terms of hourly cost (wages plus benefits). Based on the Commission's average cost (wages plus benefits) for 2016, the Commission is using $74.50/hour.
[47] 157 FERC ¶ 61,213, 18 CFR Part 35 [Docket No. RM17-3-000], Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators (December 15, 2016).

Interested persons may obtain information on the reporting requirements by contacting the following: Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426, Attention:_____, Office of the Executive Director, email: DataClearance@ferc.gov, Phone:___, fax: ____.Comments on the collection of information and the associated burden estimate in the proposed rule should be sent to the Commission in this docket and may also be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503 [Attention: Desk Officer for the Federal Energy Regulatory Commission], at the following e-mail address: oira_submission@omb.eop.gov. Please refer to Docket No.: RM17-3, FERC-____, OMB Control No. _____ in your submission.

Environmental Analysis

Though the Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment,[48] the Commission has previously concluded[49] that neither an Environmental Assessment nor an Environmental Impact Statement is required for a NOPR under section 380.4(a)(15) of the Commission's regulations, which provides a categorical exemption for approval of actions under sections 205 and 206 of the FPA relating to the filing of schedules containing all rates and charges for the transmission or sale of electric energy subject to the Commission's jurisdiction, plus the classification, practices, contracts and regulations that affect rates, charges, classifications, and services.[50] This NOPR would require an exercise of the Commission's authority under sections 205 and 206 of the FPA.

Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (RFA)[51] generally requires a description and analysis of proposed rules that will have significant economic impact on a substantial number of small entities. The RFA does not mandate any particular outcome in a rulemaking. It only requires consideration of alternatives that are less burdensome to small entities and an agency explanation of why alternatives were rejected. The Small Business Administration's (SBA) Office of Size Standards develops the numerical definition of a small business.[52] These standards are provided on the SBA website.[53]

The SBA classifies an entity as an electric utility if it is primarily engaged in the transmission, generation and/or distribution of electric energy for sale. Under this definition, the six RTOs/ISOs are considered electric utilities, specifically focused on electric bulk power and

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[48] Regulations Implementing the National Environmental Policy Act of 1969, Order No. 486, FERC Stats. & Regs. ¶ 30,783 (1987).

[49] 157 FERC ¶ 61,213, 18 CFR Part 35 [Docket No. RM17-3-000] Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators (December 15, 2016)] at para. 73.

[50] 18 C.F.R. 380.4(a)(15).

[51] 5 U.S.C. 601-12.

[52] 13 C.F.R. 121.101.

[53] U.S. Small Business Administration, Table of Small Business Size Standards Matched to North American Industry Classification System Codes (effective Feb. 26, 2016), https://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf.

control. The size criterion for a small electric utility is 500 or fewer employees.[54] Since every RTO/ISO has more than 500 employees, none are considered small entities.

Furthermore, because of their pivotal roles in wholesale electric power markets in their regions, none of the RTOs/ISOs meet the last criterion of the two-part RFA definition of a small entity: "not dominant in its field of operation."[55] As a result, we certify that the reforms required by this NOPR would not have a significant economic impact on a substantial number of small entities.

Document Availability

In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page (http://www.ferc.gov) and in the Commission's Public Reference Room during normal business hours (8:30 a.m. to 5:00 p.m. Eastern time) at 888 First Street NE, Room 2A, Washington, DC 20426.

From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.
83. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at (202) 502-6652 (toll free at 1-866-208-3676) or email at ferconlinesupport@ferc.gov, or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. E-mail the Public Reference Room at public.referenceroom@ferc.gov.

VI. Approval of the Office of the Secretary

The Secretary of Energy has approved the publication of this proposed rule.

List of Subjects in 10 CFR Part 35

Electric power rates, Electric utilities.

Issued in Washington, DC, on September 28, 2017

Rick Perry

Secretary of Energy

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[54] 13 CFR 121.201 (Sector 22, Utilities).

[55] The RFA definition of "small entity" refers to the definition provided in the Small Business Act, which defines a "small business concern" as a business that is independently owned and operated and that is not dominant in its field of operation. The Small Business Administration's regulations at 13 CFR 121.201 define the threshold for a small Electric Bulk Power Transmission and Control entity (NAICS code 221121) to be 500 employees. See 5 U.S.C. 601(3) (citing to section 3 of the Small Business Act, 15 U.S.C. 632).

For the reasons stated in the preamble, DOE proposes that FERC amend part 35, chapter I of title 18, subchapter B, Code of Federal Regulations as set forth below:

Amend Section 35.28 Non-discriminatory open access transmission tariff.

* * *

PART 35 – FILING OF RATE SCHEDULES AND TARIFFS

1. The authority citation for part 35 continues to read as follows:

   Authority: 16 U.S.C. 791a-825r; 2601-2645; 31 U.S.C. 9701; 42 U.S.C. 7101-7352.

2. Amend § 35.28 as follows:

   Add a new paragraph (g)(10).

§ 35.28 Non-discriminatory open access transmission tariff.

* * * * *

(g) Tariffs and operations of Commission-approved independent system operators and regional transmission organizations.

* * *

(12) *Pricing eligible grid reliability and resiliency resources.*

(i) *Definition of eligible grid reliability and resiliency resources.* An eligible grid reliability and resiliency resource is any resource that:

(A) is an electric generation resource physically located within a Commission-approved independent system operator or regional transmission organization;

(B) is able to provide essential energy and ancillary reliability services, including but not limited to voltage support, frequency services, operating reserves, and reactive power;

(C) has a 90-day fuel supply on site enabling it to operate during an emergency, extreme weather conditions, or a natural or man-made disaster;

(D) is compliant with all applicable federal, state, and local environmental laws, rules, and regulations; and

(E) is not subject to cost of service rate regulation by any state or local regulatory authority.

(ii) *Scope of application.* The requirements of this rule shall apply to Commission-approved independent system operators or regional transmission organizations with a day-ahead and a real-time market or the functional equivalent. The application of this rule must be consistent between the day-ahead and real-time markets.

(iii) *Reliability and resiliency rate.* Each Commission-approved independent system operator or regional transmission organization shall establish a tariff that provides a just and reasonable rate for the (A) purchase of electric energy from an eligible reliability and resiliency resource and (B) recovery of costs and a return on equity for such resource dispatched during grid operations. The just and reasonable rate shall include pricing to ensure that each eligible resource is fully compensated for the benefits and services it provides to grid operations, including reliability, resiliency, and on-site fuel assurance, and that each eligible resource recovers its fully allocated costs and a fair return on equity.

(iv) *Reliability and resiliency costs.* Compensable costs shall include, but not be limited to, operating and fuel expenses, costs of capital and debt, and a fair return on equity and investment.