UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Grid Reliability and Resilience Pricing) Docket No. RM18-1-000

COMMENTS OF AMERICAN MANUFACTURERS AND LARGE INSTITUTIONAL CUSTOMERS

PJM Industrial Customer Coalition; Coalition of MISO Transmission Customers; American Chemistry Council; Industrial Energy Consumers of America; Industrial Energy Consumers of Pennsylvania; Industrial Energy Users – Ohio; Illinois Industrial Energy Consumers; New Jersey Large Energy Users Coalition; Ohio Energy Group; West Virginia Energy Users Group; Massachusetts Chemistry & Technology Alliance; Utah Association of Energy Users; Chemical Industry Council of Illinois; Heat Treating Services Corporation of America; Michigan Chemistry Council; Corn Refiners Association; American Feed Industry Association; Chemistry Council of New Jersey; Carolina Utility Customers Association; Glass Manufacturing Industry Council; American Foundry Society; Glass Packaging Institute; Association of Businesses Advocating Tariff Equity; Industrial Energy Consumer Group; Pennsylvania Chemical Industry Council; NYS Chemistry Council; Wisconsin Industrial Energy Group, Inc.; Minnesota Large Industrial Group; American Iron and Steel Institute; National Industrial Sand Association; Industrial Minerals Association; Ohio Chemistry Technology Council; Pennsylvania Manufacturers' Association; American Forest & Paper Association; Iron Mining Association of Minnesota; Steel Manufacturers Association; Wisconsin Paper Council; and Indiana Industrial Energy Consumers, Inc.

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Dated: October 23, 2017

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Pursuant to the Federal Energy Regulatory Commission's ("Commission" or "FERC") Notice Inviting Comments dated October 2, 2017, the PJM Industrial Customer Coalition ("PJMICC"); the Coalition of MISO Transmission Customers ("CMTC"); American Chemistry Council; Industrial Energy Consumers of America ("IECA"); Industrial Energy Consumers of Pennsylvania ("IECPA"); Industrial Energy Users – Ohio ("IEU-Ohio"); Illinois Industrial Energy Consumers ("IIEC"); New Jersey Large Energy Users Coalition ("NJLEUC"); Ohio Energy Group ("OEG"), West Virginia Energy Users Group ("WVEUG"); Massachusetts Chemistry & Technology Alliance; Utah Association of Energy Users ("UAE"); Chemical Industry Council of Illinois ("CICI"); Heat Treating Services Corporation of America ("HTSMI"); Michigan Chemistry Council ("MCC"); Corn Refiners Association ("CRA"); American Feed Industry Association ("AFIA"); Chemistry Council of New Jersey ("CCNJ"); Carolina Utility Customers Association ("CUCA"); Glass Manufacturing Industry Council ("GMIC"); American Foundry Society ("AFS"); Glass Packaging Institute ("GPI"); Association of Businesses Advocating Tariff Equity ("ABATE"); Industrial Energy Consumer Group ("IECG"); Pennsylvania Chemical Industry Council ("PCIC"); NYS Chemistry Council; Wisconsin Industrial Energy Group, Inc. ("WIEG"); Minnesota Large Industrial Group ("MLIG"); American Iron and Steel Institute ("AISI"); National Industrial Sand Association ("NISI"); Industrial Minerals Association-North

America ("IMA-NA"); Ohio Chemistry Technology Council; Pennsylvania Manufacturers' Association ("PMA"); American Forest & Paper Association ("AF&PA"); Iron Mining Association of Minnesota ("IMA"); Steel Manufacturers' Association ("SMA"); Indiana Industrial Energy Consumers, Inc. ("INDIEC"); and Wisconsin Paper Council (together, "American Manufacturers"), hereby respectfully submit these Comments to the September 28, 2017 Notice of Proposed Rulemaking ("NOPR") submitted by the Secretary of Energy pursuant to the Department of Energy Organization Act ("DOE Act") (referred to as "the Grid Reliability and Resilience Pricing Rule" or "Proposed Rule" or "NOPR"). For the reasons set forth herein, the American Manufacturers respectfully request that the Commission continue to promote competition in wholesale electricity markets by declining to adopt the Proposed Rule.

I. OVERVIEW OF THE PARTIES

PJMICC is an *ad hoc* association of large industrial, commercial and institution end-users of electricity that have electricity-consuming facilities in the footprint of PJM Interconnection, L.L.C. ("PJM"). CMTC is an *ad hoc* association of end-use customers and a member of the Midcontinent Independent System Operator, Inc. ("MISO"). PJMICC and CMTC actively participate in the PJM and MISO stakeholder processes, respectively, as well as in proceedings before the Commission and the United States Courts of Appeal to work to ensure just and reasonable rates.

Industrial Energy Users-Ohio ("IEU-Ohio") is an association of large Ohio-based energy consumers. IEU-Ohio has been an active participant in state and federal regulatory proceedings involving member transmission owners participating in the MISO and PJM. IEU-Ohio will be directly affected by the outcome of this proceeding, and its interests cannot be represented adequately by any other party.

Industrial Energy Consumers of Pennsylvania ("IECPA") is a nonprofit trade association that was formed in 1982 to stimulate a positive business climate for energy consuming industrial businesses in the Commonwealth of Pennsylvania. IECPA and its members have been actively involved in the evolving energy regulatory landscape in Pennsylvania since the early 1980s. The 15 IECPA member companies employ tens of thousands of workers in Pennsylvania facilities, and spend over $1 billion annually on electricity and natural gas.

The American Chemistry Council represents the leading companies engaged in the business of chemistry. Thanks to low-cost natural gas and electricity, the U.S. chemical industry is investing $185 billion in new production capacity and creating hundreds of thousands of jobs in the process.

HTSMI is Heat Treating Services Corp. of America or HTS. HTS is a high volume commercial heat treating company specializing in rough forgings and casting that serve the automotive, heavy truck, military, agriculture, mining and off-road industries.

The Illinois Industrial Energy Consumers ("IIEC") is an *ad hoc* association of large industrial and institutional end users of electricity in Illinois who have employed approximately 90,000 people in Illinois and consumed approximately 13 billion kWh of electricity. IIEC members are permitted to purchase electricity from third-party suppliers under Illinois law and are served by Commonwealth Edison Company and Ameren Illinois Company and thus have facilities located within PJM and MISO.

The Michigan Chemistry Council ("MCC") represents chemical manufacturers, formulators, and distributors that together support more than 80,000 Michigan jobs. The MCC's members depend upon competitive energy supplies and are major users of electricity to produce essential everyday materials.

The Chemistry Council of New Jersey ("CCNJ"), founded in 1955, is the premier trade and advocacy organization representing the interests of more than 100 New Jersey manufacturers in the business of chemistry, and allied companies. Our membership consists of large and small companies that are part of New Jersey's chemical, pharmaceutical, consumer products, petroleum refining, flavor & fragrances, and precious metals industries. The CCNJ is committed to a better quality of life through science.

The Carolina Utility Customers Association ("CUCA") is an organization that provides a cost-effective and successful forum to address, represent, and protect the energy interests of industrial companies with operations in North Carolina before all appropriate regulatory, legislative, and judicial bodies.

The Industrial Energy Consumers of America is an association of manufacturing companies with $1.0 trillion in annual sales representing industries that include chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement.

Glass Manufacturing Industry Council ("GMIC") is a 501(c)(6) non-profit trade association representing the interests of the glass manufacturing industry. GMIC bridges all segments of glass manufacturing, including float glass, container, fiber and specialty glass.

The American Foundry Society ("AFS") is the major trade and technical association for the U.S. metalcasting industry providing employment for over 200,000 men and women that manufacture castings made from iron, steel and aluminum alloys that have thousands of applications and are the underpinning for the energy, transportation, aerospace and defense sectors.

The Industrial Energy Consumers Group ("IECG") is an organization made up of a diverse group of energy users including ski areas, technology services, and several manufacturing employers who generate and use electricity as part of their operations or businesses in Maine.

The West Virginia Energy Users Group ("WVEUG") is a statewide association of large, energy intensive industrial, manufacturing, chemical, and institutional concerns in West Virginia, a state where retail electric rates are still determined pursuant to a "traditional" regulatory model, but it is model that is directly impacted by and tethered to the wholesale electric market. WVEUG members pool their resources to put downward pressure on energy rates, principally through participation in litigated cases before the state Public Service Commission.

New Jersey Large Energy Users Coalition ("NJLEUC") is a coalition that is populated by New Jersey's largest businesses and consumers of electricity and natural gas, including pharmaceutical and chemical companies, oil refineries and diversified manufacturing firms.

The Ohio Energy Group ("OEG") is an organization of large energy intensive industrial corporations with one or more plants in Ohio. Our 27 members operate over 114 facilities in Ohio, employ approximately 51,000 men and women and spend almost $1 billion annually on gas and electricity. OEG regularly participates in regulatory and legislative proceedings at the state and federal level on matters affecting energy pricing and policy.

The Massachusetts Chemistry & Technology Alliance, is a professional association representing the users, manufacturers and distributors of chemistry in the Commonwealth of Massachusetts.

The Utah Association of Energy Users ("UAE") is a non-profit organization comprised of industrial and commercial companies, with a large and diversified base of support from which to develop and influence energy policies and regulations. UAE represents its members in front of

the Utah Public Service Commission on regulatory matters and before the Utah legislature on energy-related legislative issues.

The Chemical Industry Council of Illinois ("CICI") is a state-wide business trade group that represents the interests of the chemical industry in the state of Illinois, which is the second largest manufacturing sector in the state.

The NYS Chemistry Council is a state based trade association that represents companies in the business of chemistry and plastics manufacturers who employ New Yorkers at all levels of the business.

The Wisconsin Industrial Energy Group, Inc. ("WIEG"), represents 30 large companies with operations in Wisconsin, which employ approximately 50,000 people. WIEG members represent many of the state's largest energy consumers including paper, malting, automobile, food processing, chemical, metal casting, and fabricating companies.

The Pennsylvania Chemical Industry Council ("PCIC") is the advocacy organization acting on behalf of the state's chemical industry and providing solutions that bring value for member companies. PCIC works to make Pennsylvania an ideal home for chemical and related industries.

The Corn Refiners Association ("CRA") is the national trade association representing the corn refining industry of the United States. CRA and its predecessors have served this important segment of American agribusiness since 1913. Corn refiners manufacture sweeteners, starch, advanced bioproducts, corn oil and feed products from corn components such as starch, oil, protein and fiber.

The American Feed Industry Association is the world's largest organization devoted exclusively to representing the business, legislative and regulatory interests of the U.S. animal feed industry and its suppliers. Association Members include more than 600 domestic and international

companies and state, regional and national associations. Member companies are livestock, feed and pet food manufacturers, integrators, pharmaceutical companies, ingredient suppliers, equipment manufacturers and companies that supply other products, services and supplies to feed manufacturers.

Association of Businesses Advocating Tariff Equity ("ABATE") is a voluntary association of large industrial businesses which are located in and doing business in the State of Michigan. The purposes of ABATE are to appear before state and federal regulatory, judicial, and legislative bodies having jurisdiction over public utilities and natural gas pipelines, to advocate the adoption of utility and energy rates, terms and conditions of service, and other tariffs or contracts governing utility and energy services which are just and reasonable, nondiscriminatory, nonpreferential, equitable and based on the cost of providing service to each class of utility customer.

The Glass Packaging Institute ("GPI") is the trade association representing the North American glass container industry. On behalf of glass container manufacturers, GPI promotes glass as the optimal packaging choice, advances environmental and recycling policies, advocates industry standards, and educates packaging professionals.

The Minnesota Large Industrial Group is an ad hoc consortium of large industrial consumers of electricity with operations in Minnesota that collectively consumes in excess of 6.5 billion kWh annually.

American Iron and Steel Institute ("AISI") serves as the voice of the North American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI also plays a lead role in the development and application of new steels and steelmaking technology. AISI is comprised of 19 member companies, including

integrated and electric furnace steelmakers, and approximately 120 associate members who are suppliers to or customers of the steel industry.

The National Industrial Sand Association ("NISA") is the premier voice and representative of the national sand industry and its many stakeholders.

The Industrial Minerals Association - North America ("IMA-NA") is the representative voice of companies which extract and process a vital and beneficial group of raw materials known as industrial minerals.

The Ohio Chemistry Technology Council is the leading advocate for Ohio' chemical technology industry, the second largest manufacturing industry in Ohio and the sixth largest chemical manufacturing state in the nation.

The Pennsylvania Manufacturers' Association ("PMA") is the nonprofit, statewide trade organization representing the manufacturing sector in Pennsylvania's public policy process. PMA works to maximize domestic market–driven energy production and promotes reliable, affordable sources of energy.

For 25 years, the Iron Mining Association of Minnesota ("IMA") has represented more than 15,000 people who work in Minnesota's iron mines and over 150 companies across the nation that provide goods and services to the iron mining industry. The IMA represents an industry that has been around for over 130 years and contributes more than $3 billion to the economy each year. Minnesota's iron mines produce more than 85% of domestic iron that work with the nation's steel producers.

American Forest & Paper Association ("AF&PA") is the trade association of the pulp, paper, packaging, tissue, and wood products industry in the United States. AF&PA's members are among the nation's largest consumers of electric power, purchasing over 82 billion kilowatt-hours

of electricity annually nationwide. AF&PA's members include electricity consumers and producers.

Steel Manufacturers Association ("SMA") is the primary trade association for scrap-based electric arc furnace steelmakers, whose 26 North American companies operate over 125 facilities, and employ approximately 60,000 people. In 2016, these facilities accounted for more than 65% of U.S. steel production, melting a feedstock of almost 100% steel scrap into new steel products. This method of steel-making is highly efficient, but it is energy intensive, and these facilities require reliable, adequate and reasonably priced electric power to be economically competitive. SMA's members operate in 43 states, and are the nation's largest recyclers. They are large consumers of electricity in the footprints of organized wholesale power markets regulated by the Commission through regional transmission entities (RTOs or ISOs) as well as regions which have retained a vertically integrated utility structure in which the costs of utility generation fleets and production plant are recovered through cost-based rates. The steel products produced by SMA's members are sold in intensely competitive global markets.

The Indiana Industrial Energy Consumers, Inc. ("INDIEC") is a not for profit 501(C)(6) corporation incorporated and doing business in the state of Indiana. INDIEC's 23 member companies employ over 55,000 people in Indiana and their combined gas and electric bills are over $900 million annually. Members of INDIEC are served by transmission owners within MISO abd PJM. As large energy consumers of electricity, INDIEC members will be directly affected by the outcome of this proceeding.

II. INTRODUCTION AND PROCEDURAL BACKGROUND

On September 28, 2017, pursuant to section 403 of the DOE Act,[1] the Secretary of Energy ("Secretary") proposed a rule for final action by the Commission within 60 days from publication in the *Federal Register*.[2]

On October 2, 2017, the Commission issued a notice of proposed rulemaking, establishing October 23, 2017 and November 7, 2017, as the deadlines for submitting initial and reply comments, respectively.[3]

On October 3, 2017, the Energy Industry Associations filed a Joint Motion for Extension of Time for Initial Comments and Reply Comments.

On October 4, 2017, FERC Staff issued a *Request for Information Regarding Section 403 of the Department of Energy Organization Act's Proposed Rule for Final Action*.[4] FERC Staff's Information Request presented more than 50 questions on approximately eight issues and sub-issues for public comment as part of the proposed rulemaking process.

On October 5, 2017, PJMICC and CMTC filed an Answer in Support of the Energy Industry Association's Motion for Extension of Time. In addition, a number of other parties filed pleadings in support of an extension of time, including but not limited to, the Industrial Energy Consumers of America, the Organization of MISO States, the National Association of State Utility Consumer Advocates, the American Forest & Paper Association, the Public Interest Organizations,

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[1] 42 U.S.C. § 7173 (2012).

[2] Grid Reliability and Resiliency Pricing Rule, 82 Fed. Reg. 46940 (2017) (to be codified at 18 C.F.R. pt. 35) ("DATES: The Commission is directed either to take final action by December 11, 2017 or to issue the proposed rule as an interim final rule. Public comment is due either November 24, 2017 or according to a schedule to be published by the Commission.").

[3] Notice Inviting Comments, *Grid Reliability and Resilience Pricing,* Docket No. RM18-1-000 (Oct. 2, 2017).

[4] Request for Information, *Grid Reliability and Resilience Pricing*, Docket No. RM18-1-000 (Oct. 4, 2017) ("Information Request").

Process Gas Consumers Group, and Independent Petroleum Association of America and Cooperating Associations.

By Notice issued October 11, 2017, the Commission denied the motions for extension of time and reiterated that any initial comments must be filed no later than October 23, 2017 and any reply comments must be filed no later than November 7, 2017. On October 16, 2017, the deadlines for filing comments and reply comments were published in the *Federal Register*.[5]

Pursuant to the Commission's notice, American Manufacturers hereby submit these Comments on the proposed rule. Supporting materials are included as Appendix A.

III. EXECUTIVE SUMMARY

For more than two decades, American Manufacturers have been fighting to promote competitive wholesale electric markets and, in some states, competitive retail electric markets and/or competitive retail rates. After much struggle and after overcoming overwhelming opposition from many incumbent suppliers, these efforts are beginning to bear fruit in the form of lower prices, retirement of inefficient units, investment risk being placed on developers instead of being placed wholly on consumers, enhanced choices, and greater diversity in the generation portfolio. While much work lies ahead, the Commission has held steady in its embrace of competition as the primary means of ensuring rates that are just, reasonable, and not unduly discriminatory, consistent with the Commission's statutory obligations under the Federal Power Act ("FPA").[6] The Commission should not allow the Proposed Rule to distract from the Commission's objective of ensuring competitive, well-functioning wholesale electricity markets.

[5] 82 Fed. Reg. 48013 (2017). *Cf.* Executive Order 12866 provides that in order to "afford the public a meaningful opportunity to comment on any proposed regulation," the comment period should, "in most cases," be "not less than 60 days." The Commission's October 23, 2017 comment deadline affords the public far less than 45 days in which to comment.

[6] The primary purpose of the FPA is to ensure "an abundant supply of electricity throughout the United States with the greatest possible economy." *See* 16 U.S.C. § 824a(a); *see also Pennsylvania Power Co. v. Federal Power Comm'n*,

In the Comments below, and in the various appendices to these Comments, American Manufacturers attempt to answer each of the questions posed in Staff's Information Request and provide numerous studies and reports showing that:

- Resilience is already a critical part of reliability assessments – no need exists to carve out and treat it as a discrete characteristic of wholesale electricity markets;
- Many of the premises underlying the Proposed Rule are vastly overstated or demonstrably false;
- Regional Transmission Organizations' ("RTO") and Independent System Operators' ("ISO") energy and capacity markets have accommodated and adapted well to the retirements of large amounts of baseload generation;
- Hyperbolic statements about the impacts of recent weather phenomena are contrary to the public interest and are not conducive to rational discourse about the future direction of competitive wholesale electricity markets;
- The Proposed Rule does not appreciate, or overlooks, substantial modifications to wholesale electricity market rules that have been accepted by the Commission and affirmed by United States Courts of Appeals since 2014; and
- The Proposed Rule does not appreciate, or overlooks, decades of precedent that bounds the determination of cost-based rates.

For the reasons stated in these Comments, and the voluminous evidence presented in the Appendix to these Comments, the Commission should reject the Proposed Rule.

343 U.S. 414, 418 (1952) (stating the FPA's primary purpose is "to protect power consumers against excessive prices"); *NAACP v. Federal Power Comm'n*, 425 U.S. 662, 669-670 (1976) ("[I]t is clear that the principal purpose" of the FPA is "to encourage the orderly development of plentiful supplies of electricity…at reasonable prices.").

IV. COMMENTS

A. Pursuant To Its Authority Under Section 403 of the DOE Act, the Commission Should Reject the Secretary's Proposed Rule.

In the NOPR, the Secretary invoked his authority under section 403 of the DOE Act to propose rules for Commission action.[7] The Secretary offered that "proposing a rule in this manner…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."[8] Additionally, the Secretary recommended a truncated schedule on the claim that the Commission has an "extensive record…developed on the subject matter of this proposed rule."[9] In apparent recognition that his authority under section 403 may be incomplete, the Secretary also pointed to the Commission's own authority to adopt rules under Section 403(c).[10] Under section 403(b), the Commission may reject or amend the Secretary's proposal. Given the ill-advised nature of the rule that the Secretary has proposed, the Commission should exercise its authority under section 403 to reject the Proposed Rule.

Title IV of the DOE Act provides for the creation of the Commission as an "independent regulatory commission."[11] Under section 402 of the DOE Act, the Commission is vested with the authority to enforce Part II of the Federal Power Act. The Commission's jurisdiction is exclusive.[12]

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[7] 82 Fed. Reg. 46940.

[8] *Id*. at 46941.

[9] *Id*.

[10] *Id.*

[11] 42 U.S.C. § 7171(a). As an independent regulatory commission, "the members, employees, or other personnel of the Commission shall not be responsible to or subject to the supervision or direction of any officer, employee, or agent of any other part of the Department [of Energy]." *Id*. § 7171(d).

[12] *Id*. § 7172(g). "The FERC was created, after all, for the purpose of denying to the Secretary the power both to propose and to decide major pricing and licensing matters." E. Grenier and R. Clark, *The Relationship Between DOE and FERC: Innovative Government or Inevitable Headache*, 1 Energy L.J. 325, 345 (1980), *available at* http://www.felj.org/sites/default/files/elj/Energy%20Journals/Vol1_No2_1980_The_Relationship_Between_DOE_and_F.pdf. A copy of this document is attached as Appendix A-1.

Section 401(f) provides that the Commission is authorized to establish such procedural and administrative rules as are necessary to exercise its functions. Additionally, section 403(c) provides that "[a]ny function described in section 402 of this Act which relates to the establishment of rates and charges under the Federal Power Act…may be conducted by rulemaking procedures."[13]

Under the DOE Act, the Secretary has some limited authority to present recommendations to the Commission for the adoption of rules, but that authority does *not* include dictating the results of the rulemaking, as the Secretary attempts to do here. Under subsection (a) of section 403, the Secretary is "authorized to propose rules, regulations, and statements of policy of general applicability with respect to any function within the jurisdiction of the Commission under section 402 of this Act."[14] The Commission, however, has "exclusive jurisdiction with respect to any proposal made" by the Secretary under subsection (a).[15] The DOE Act explicitly states, "[t]he decision of the Commission involving any function within its jurisdiction…*shall not* be subject to further review by the Secretary."[16] As the DOE Act's legislative history underscores, the Secretary may "participate" in the rulemaking proceeding, but jurisdiction over the subject matter remains with the Commission.[17] As in the case of a proceeding under section 404, the Conference Committee Report further states, "[The] Commission may either concur in the Secretary's proposal, concur with an amendment, or recommend against adopting the rule."[18]

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[13] 42 U.S.C. § 7173(c).

[14] *Id*. § 7173(a).

[15] *Id*. § 7173(b).

[16] *Id*. § 7172(g) (emphasis added).

[17] House Conf. Rep. 95-539, 95th Cong., 1st Sess. at 76 (1977).

[18] *Id*. at 80.

Thus, the Commission possesses the authority to amend or reject the Secretary's Proposed Rule under section 403(b). As discussed in the Comments below, there is ample reason for the Commission to reject the Proposed Rule in this proceeding.

B. The Proposed Rule May Not Be Adopted Unless the Commission Makes The Requisite Findings That The Existing Rules Are Not Just And Reasonable and Unless The Commission Justifies What Would Be a Sharp Departure From Its Prior Practices.

The Secretary has relied upon section 206 of the Federal Power Act as a basis for the Commission to act on the Proposed Rule. While the Commission may adopt by rule changes in rates under section 206,[19] the Commission must find that current rates are "unjust, unreasonable, unduly discriminatory or preferential" before it may determine the just and reasonable rate. Further, before the Commission can adopt the Proposed Rule in whole or in part, it must explain its sharp departure from more than 20 years of well-established policy. As discussed in greater detail in the remainder of these Comments, the Secretary has not and cannot demonstrate that current rates are unjust and unreasonable and has not provided a reasoned basis for the Proposed Rule upon which the Commission may rely.

The Federal Power Act does not vest the Commission with unfettered discretion to change rates. Section 206 of the Federal Power Act makes clear that, for the Commission to change existing rates, it must first find that those rates are not just and reasonable:

(a) Unjust or preferential rates, etc.; statement of reasons for changes; hearing; specification of issues

> Whenever the Commission, after a hearing held upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice,

[19] *Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom*., *New York v. FERC*, 535 U.S. 1 (2002).

> or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order. Any complaint or motion of the Commission to initiate a proceeding under this section shall state the change or changes to be made in the rate, charge, classification, rule, regulation, practice, or contract then in force, and the reasons for any proposed change or changes therein. If, after review of any motion or complaint and answer, the Commission shall decide to hold a hearing, it shall fix by order the time and place of such hearing and shall specify the issues to be adjudicated.[20]

In this instance, the Secretary's submission has failed to meet the statutory burden. Most telling is the Secretary's failure to even note in his submittal letter that the report that he commissioned on reliability and resilience ultimately concluded that the current system is reliable.[21] Further, the Commission is well aware of the efforts of PJM and other RTOs and ISOs to address concerns about reliability such as PJM's adoption of Capacity Performance that are discussed below. Accordingly, there is no lawful or reasoned basis on which the Commission may determine that current rates produced by RTOs and ISOs through market-based mechanisms, or the processes for adjusting those rates to address reliability concerns when they emerge on a temporary basis, are unjust or unreasonable.

The Commission is also obligated to explain shifts in Commission policy and departures from existing precedent. The Proposed Rule, if adopted, would impermissibly depart from well-established Commission policy and precedent without providing a reasoned explanation for this departure. The Proposed Rule's failure "to come to terms with [the Commission's] own precedent

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[20] 16 U.S.C. § 824e(a); *NRG Power Marketing, LLC v. FERC*, 862 F.3d 108, 114 n.2 (D.C. Cir. 2017) ("Section 206 requires FERC to demonstrate that the existing rates are entirely outside the zone of reasonableness"); *see also FPC v. Sierra Pac. Power*, 350 U.S. 348, 353 (1956) (finding that condition precedent to the Commission' exercise of power under 206(a) is a finding that the existing rates are not just and reasonable).

[21] *See* U.S. Department of Energy, *Staff Report to the Secretary on Electricity Markets and Reliability*, at 10, 11 (Aug. 2017), *available at* https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf ("*DOE Staff Report to the Secretary on Electricity Markets and Reliability*"). A copy of this document is attached as Appendix A-2.

reflects the absence of a reasoned decision making process."[22] Without a reasoned basis for altering the current rules applicable to RTOs and ISOs and the tariffs the Commission has approved under those rules, the Commission may not lawfully adopt the Secretary's Proposed Rule.[23]

C. Adoption of the Proposed Rule Would Place Customers in the Untenable Position of Paying The Higher of Cost-Based Rates or Market-Based Rates.

Implicit in the Proposed Rule is the view that energy markets based on locational marginal pricing ("LMP"), during this period of low natural gas prices driven by the Marcellus and Utica Shale revolution, do not provide sufficient cost support for certain legacy generation resources or types of conventional generation. American Manufacturers believe that a primary benefit of a market-approach to energy regulation is that the market provides a price signal when resources are needed for reliability and, conversely, when units should retire. Energy and capacity markets operated by RTOs and ISOs have been found to be working as intended.[24]

Adoption of the Proposed Rule would place customers in the untenable position of being responsible for the higher of cost- or market-based rates. When LMP prices are higher, driven by higher fuel costs, customers have been compelled to pay such market-based prices. Now, driven by lower cost prices, the Proposed Rule would lead customers to guarantee cost recovery for

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[22] *PSE&G Gas Transmission v. FERC*, 315 F.3d 383, 390 (D.C. Cir. 2003) (vacating FERC orders); *see also North Carolina Utils. Comm'n v. FERC*, 42 F.3d 659, 666 (D.C. Cir. 1994) (rejecting a FERC order because the Commission did not "sufficiently explain[] its departure from its prior cases"); *Hatch v. FERC*, 654 F.2d 825, 834 (D.C. Cir. 1981) ("[A]n agency must provide a reasoned explanation for any failure to adhere to its own precedents."); *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970) ("[A]n agency changing its course must supply a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored.").

[23] *Wisconsin Gas Co. v. FERC*, 770 F.2d 1144 (D.C. Cir. 1985) (Commission may not rely solely on unsupported or abstract allegations). The Commission's rulemaking is governed by the Administrative Procedures Act. Under the Act, Section 553 of Title 5 concerning rulemaking, an agency must provide a sufficiently clear, cogent and reasoned explanation for its decision to alter an existing rule. *American Petroleum Institute v. Johnson*, 541 F. Supp. 2d 165 (D.D.C. 2008).

[24] *See, e.g.*, Monitoring Analytics, LLC, Independent Market Monitor for PJM, *State of the Market Report for PJM: January through June*, at 1-5 (Aug. 10, 2017), *available at* http://monitoringanalytics.com/reports/PJM_State_of_the_Market/2017/2017q2-som-pjm.pdf ("*IMM Q2 2017 State of the Market Report for PJM*"). A copy of this document is attached as Appendix A-3.

certain types of generation, including legacy units, in contravention of fundamental and long-standing tenets of FERC ratemaking.[25] Under this approach, customers cannot reasonably view their rates would be "just and reasonable."

Plainly stated, energy-intensive businesses that depend on reliable and reasonably priced energy to produce products and provide services would be required to provide an apparent long-term bailout to certain market participants. Such a bailout cannot be justified on reliability grounds based on well-documented evidence.[26] If this Proposed Rule were to be adopted, the promise of a market-oriented approach for electric regulation will not be just dimmed, but perhaps permanently broken.

American Manufacturers have supported efforts to introduce effective and dynamic competition at the federal and state levels after a period of time in which customers were experiencing large increases in energy costs that severely compromised energy-intensive businesses' ability to compete. Between 1975 and 1985, industrial electricity prices rose 28 percent in real terms, caused primarily by increases in utility construction and fuel costs.[27] Wholesale and retail restructuring efforts occurred in response to such cost increases. As a function of state restructuring, customers were required to pay "stranded costs" to owners of generation assets, including nuclear and coal assets, that were projected to be uneconomic when the lower prices produced by competition were expected, including stranded costs for both nuclear and coal assets.

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[25] *See Federal Power Comm'n v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944).

[26] *See, e.g.*, PJM Interconnection, L.L.C., *PJM's Evolving Resource Mix and System Reliability*, at 3, 5, 6, and 8 (Mar. 30, 2017), *available at* http://pjm.com/-/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx?la=en ("*PJM's Evolving Mix and System Reliability*"). A copy of this document is attached as Appendix A-4.

[27] DOE EIA, *The Changing Structure of the Electric Power Industry 2000: An Update* at 1 (Oct. 2000), *available at* http://webapp1.dlib.indiana.edu/virtual_disk_library/index.cgi/4265704/FID1578/pdf/electric/056200.pdf. A copy of this document is attached as Appendix A-5.

Stranded cost studies in a number of states projected market prices under 3 cents per kilowatt-hour ("kWh") - $30 per megawatt-hour ("MWh") - for baseload power in real terms for the indefinite future.[28] A number of utilities received stranded costs based on those low numbers when market prices actually were much higher, driven by higher natural gas prices. In Pennsylvania alone, customers paid the Pennsylvania jurisdictional utilities approximately $12.3 billion in stranded costs.[29] Stranded cost determinations were not changed in Pennsylvania when energy market prices were, in actuality, much higher than projected in the stranded cost proceedings. As such, generation owners, many of which were affiliates of the jurisdictional utilities, realized the upside benefit of higher LMPs while customers continued to make stranded cost payments.

As such, with respect to many of the assets that would presumably be considered eligible resources under the Proposed Rule, American Manufacturers have already shouldered the costs of paying the asset owners at least once through regulated rates (return of, and on, capital investment), again through stranded costs, and once more when high natural gas prices in the mid-2000s drove energy market prices to higher levels.

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[28] *See* JBS Energy, Inc., *Restructuring and Stranded Costs: Theory, Practice, and Unforeseen Implications* at 19 (Oct. 2000) (prepared for the Attorney General of Arkansas), *available at* http://www.jbsenergy.com/downloads/ark_restr_strand_cost.pdf. A copy of this document is attached as Appendix A-6.

[29] *See Application of Metropolitan Edison Company for Approval of its Restructuring Plan Under Section 2806 of the Public Utility Code, et al.; Application of Pennsylvania Electric Company for Approval of its Restructuring Plan Under Section 2806 of the Public Utility Code, et al*., Docket Nos. R-00974008, *et al.*, and R-00974009, *et al*., Final Opinion and Order (Oct. 20, 1998); *Pennsylvania Public Utility Commission v. Pennsylvania Power Company (Application for Approval of A Restructuring Plan Under Section 2806 of the Public Utility Code),* Docket No. R-00974149, Final Order (May 3, 1999)(adopting Tentative Order entered Apr. 1, 1999); *Application of PECO Energy Company for Approval of its Restructuring Plan Under Section 2806 of the Public Utility Code, et al.,* Docket Nos. R-00973953 and P-00971265, Final Order (May 14, 1998); *Re West Penn Power Company*, 91 Pa. PUC 700 (Order entered Nov. 19, 1998).

Industrial customers have, at times, been critical about whether restructured wholesale energy markets have realized their promise. When natural gas prices were at their peak, many industrial customers raised repeated concerns about whether LMP-based energy markets were a just and reasonable approach to setting energy prices in wholesale electric markets. Many raised repeated concern, if not objection, that LMPs drove short-term market outcomes toward pricing for all energy on the basis of the least efficient and most expensive fuel source, which, at the time, was natural gas. Market participants' and policy makers' response to industrial customer concerns was that "the market was the market", with high prices being only a function of gas prices, and nothing can or should be done to ameliorate high LMPs. During that time period, owners of coal and nuclear units realized tremendous returns on their investment (after receiving returns on the same investment via regulated rates and stranded cost recovery).

Fast forward ten years, and LMP remains the pricing methodology in PJM and MISO. However, with abundant natural gas and low fuel prices, LMPs have reached historic lows. LMPs may be low but there is no evidence that LMPs are not accurately reflecting competitive market behavior and low fuel costs. The Commission would be making a poor policy decision to now require that customers, who shouldered the burden of high prices during the high point of the market, provide economic lifelines to certain uneconomic resources that the market is signaling should retire because they are no longer profitable under market rules that the Commission itself has thoroughly vetted and accepted, and multiple courts of appeal have affirmed.

D. The Proposed Rule Would Directly Undercut the Tremendous Economic Advantage To the United States From Natural Gas Shale Plays.

American Manufacturers view the advent of low priced natural gas specifically, and energy prices generally, as a monumental opportunity. Low natural gas prices and the resulting low energy prices in LMP-based markets provide a tremendous economic advantage to energy-

intensive businesses. These businesses contribute in meaningful and tangible ways to the communities in which they are located. In fact, the Shale Plays have been cited as drivers behind a "Manufacturing Renaissance" in the United States. Requiring customers, including energy-intensive businesses, to subsidize (apparently indefinitely) large amounts of uneconomic generation sources would directly undercut the opportunity for economic growth that the regions specifically targeted by the Proposed Rule now enjoy by virtue of the natural gas Shale Plays.

The economic benefits of shale gas production are real and tangible. The lower price of natural gas translates into lower priced electricity. As stated in a report in *The Economist*, "In principle, all American companies and consumers benefit from lower energy prices. The effect may not always be big enough to spur heavy new investment, but it might be sufficient to keep American factories with high labour costs going in the face of foreign competition."[30] Economists at Citigroup and UBS predict that shale gas will lift America's Gross Domestic Product ("GDP") growth by half a percentage point a year for the next few years.[31] Indeed, less expensive energy is cited as one factor by those who have predicted a manufacturing renaissance in America.[32]

Natural gas markets have been found to be less integrated compared to markets for other fossil fuels. As such, U.S. natural gas prices have fallen sharply and are effectively decoupled from those in the rest of the world. This offers the United States a concrete competitive advantage. If energy-intensive customers are required to subsidize uneconomic coal and nuclear generators that the RTOs have already found to be unnecessary for reliable operations, the competitive cost advantage that the Shale Plays have brought will be undercut. Simply put, the tax on businesses

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[30] The Economist, *Deep sigh of relief* (Mar. 16, 2013), *available at* https://www.economist.com/news/special-report/21573279-shale-gas-and-oil-bonanza-transforming-americas-energy-outlook-and-boosting-its (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-7.

[31] *Id.*

[32] *Id.*

produced by the Proposed Rule - if it were to be adopted - would increase energy costs and would make those regions that must pay the new tax less attractive for businesses to locate or expand their operations.

Other studies have linked American natural gas development with strengthening the U.S. economy and making domestic manufacturing more competitive.[33] A report from the University of Michigan found that more than 200 mostly U.S.-based companies have participated in "onshoring" during the prior four years, motivated in part by the availability of less expensive natural gas.[34] Researchers at the London School of Economics found the estimated effect of the shale gas boon on gross output, employment, and capital investment within energy-intensive sectors is "positive throughout and significant."[35] Their research showed that the "shale gas boom" led to a "relative expansion of energy intensive manufacturing in the U.S."[36] Similarly, the researchers found that U.S. manufacturing exports grew "by about 10 percent on account of their energy intensity since the onset of the shale revolution."[37] In short, the study found that the "price differential between the U.S. compared to Asia and Europe is thus likely to persist in turn helping to lift U.S. manufacturing."[38] Adoption of the Proposed Rule could be reasonably presumed to affect the existing price differential and, thus, undercut U.S. manufacturing.

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[33] *See* HIS CERA, *Fueling the Future with Natural Gas: Bringing It Home* (Jan. 2014), *available at* http://marcelluscoalition.org/wp-content/uploads/2014/01/Fueling-the-Future-Executive-Summary-14Jan2014.pdf. A copy of this document is attached as Appendix A-8.

[34] University of Michigan, *Shale Gas: A Game-Changer For U.S. Manufacturing* at 14 (July 2014), *available at* http://energy.umich.edu/sites/default/files/PDF%20Shale%20Gas%20FINAL%20web%20version.pdf. A copy of this document is attached as Appendix A-9.

[35] Centre for Economic Performance, *On the Comparative Advantage of U.S. Manufacturing: Evidence from the Shale Gas Revolution* at 24 (Nov. 2016), *available at* http://cep.lse.ac.uk/pubs/download/dp1454.pdf. A copy of this document is attached as Appendix A-10.

[36] *Id.* at 32.

[37] *Id.*

[38] *Id.* at 33.

Many have claimed that the United States is in the midst of an energy revolution. With such fundamental change, it is reasonable to conclude there will be "winners" and "losers." Low natural gas prices may have an adverse impact on certain market participants, such as certain inefficient legacy coal units and single-unit nuclear plants. As a general matter, however, the shale gas revolution should be viewed as an opportunity to establish a competitive advantage for the vast majority of our nation's economy that has benefited from lower energy prices. The Proposed Rule, if adopted, would undeniably increase both near-term and long-term energy costs for all customers, particularly energy-intensive businesses, while providing unprecedented financial security to a discreet and limited class of market participants that own inefficient legacy units. Such a result cannot be viewed as sound public policy or as capable of producing just and reasonable rates, free from undue discrimination. In fact, such an approach threatens the economic outlook for all businesses that evaluate energy costs as a component of whether to site, maintain, or expand businesses in a particular region.

E. The Proposed Rule Attempts To Set New Rates That Would Be Unduly Discriminatory And, Thus, Would Run Afoul of the Federal Power Act.

The Proposed Rule attempts to cater to two specific types of generators – coal-fired and nuclear – without providing a reasoned explanation, based on substantial evidence, that these types of generation are so uniquely situated that they should qualify for certain additional compensation while generators with other fuel types (*e.g.*, natural gas-fired, solar, wind, diesel, oil-fired, etc.) should not so qualify. The Proposed Rule also targets certain geographical areas of the country – regions with ISOs/RTOs that coordinate both energy and capacity markets – while not applying to all other areas of the country. The Proposed Rule provides no concrete basis for such discrimination.

Discrimination, without a well-founded basis for the discrimination, constitutes undue discrimination and undue preference. Commission-adopted outcomes that are unduly discriminatory or preferential are expressly prohibited by the Federal Power Act.[39] As such, the Proposed Rule presents an outcome that cannot be squared with the Federal Power Act, and should be rejected on that basis alone.

F. Responses to Commission Staff's Specific Questions.

Commission Staff issued a list of thoughtful questions about the Proposed Rule. In this Section, American Manufacturers attempt to address each of the questions posed by Commission Staff.[40]

Topic:	**Need for Reform**
Question 1:	**What is resilience, how is it measured, and how is it different from reliability? What levels of resilience and reliability are appropriate? How are reliability and resilience valued, or not valued, inside RTOs/ISOs? Do RTO/ISO energy and/or capacity markets properly value reliability and resilience? What resources can address reliability and resilience, and in what ways?**

Response:

The bottom-line is that "resilience" does not appear to have a standard definition, has not been clearly identified as a problem, and does not appear to be either measurable or auditable. Consequently, at present, there is no basis for demonstrating a need for investment in resilience and no basis for calibrating any such investment to ensure that consumers are not saddled with unnecessary costs.

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[39] 16 U.S.C. §§ 824d, 824e.

[40] Simply stated, the allotted time period for comments under the procedural schedule for this proceeding does not afford ample time to prepare the type of responses American Manufacturers would prefer to make and, indeed, should be made to the Staff's Information Request and the Secretary's unfounded Proposed Rule. The record in this proceeding, which is replete with requests for extensions of time and numerous arguments explaining the need for additional time to respond to a potentially seismic shift in our nation's organized wholesale power markets, demonstrates that American Manufacturers are not alone. Nonetheless, American Manufacturers have endeavored to provide responses that are as cogent as possible given the unreasonable time constraints imposed by the comment deadline.

A May 9, 2012 a North American Electric Reliability Corporation ("NERC") Severe Impact Resistance Task Force report provided the following definition for "Infrastructure Resilience":

> "Infrastructure resilience" is the ability to reduce the magnitude and/or duration of disruptive events. The effectiveness of a resilient infrastructure or enterprise depends upon its ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event.[41]

While "resilience" is mentioned by NERC, there is no definition of "resilience" in the NERC Glossary.

PJM presently has no resilience metrics and, as noted in a presentation for a stakeholder meeting held after issuance of the Proposed Rule, is in the process of trying to develop the metrics as noted in the Planning Committee material.[42] There is no evidence that MISO or other ISOs or RTOs that may be subject to the Proposed Rule are any further along in their analysis.

What is in place is a well-defined and carefully crafted set of reliability standards and metrics that have been quite successful in ensuring reliable and "resilient" operation of the electric grid for many years. NERC defines reliable operations as "operating the elements of the bulk power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."[43]

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[41] North American Electric Reliability Corporation, *Severe Impact Resilience: Considerations and Recommendations* at 12 (May 9, 2012), *available at* http://www.nerc.com/docs/oc/sirtf/SIRTF_Final_May_9_2012-Board_Accepted.pdf. A copy of this document is attached as Appendix A-11. Also, the 2017 NERC State of Reliability Report refers to resilience issues frequently. *See* North American Electric Reliability Corporation, *State of Reliability 2017* (June 2017), *available at* http://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/SOR_2017_MASTER_20170613.pdf ("*NERC State of Reliability 2017 Report*"). A copy of this document is attached as Appendix A-12.

[42] *See* PJM Interconnection, L.L.C., *Resilience in System Planning* (Oct. 12, 2017), *available at* http://www.pjm.com/-/media/committees-groups/committees/pc/20171012/20171012-item-09-grid-resilience-in-system-planning.ashx. A copy of this document is attached as Appendix A-13.

[43] *Petition Of The North American Electric Reliability Corporation For Approval of the NERC Glossary Terms "Bulk-Power System," "Reliable Operation" And "Reliability Standard",* FERC Docket RD13-10, (May 10. 2013). The petition was approved by a letter order issued in the docket on July 9, 2013.

Thus, reliability, although it requires advance planning and coordination, generally is measured in terms of how the power grid operates in real time.[44] In 2016, NERC reported that the U.S experienced no category stage four or five events.[45]

For most customers, real world reliability is most often a function of whether the distribution circuits providing service to their location are in service.[46] Within the United States, electric utilities generally plan to have electric generation capacity sufficient to meet a one day in ten year loss of load probability. This standard has translated into relatively few and infrequent capacity shortages that threaten the loss of firm load. In recognition of the impact of distribution circuits on reliability, many state commissions require their electric distribution utilities to report periodically statistical information[47] on their system average interruption frequency index ("SAIFI")[48] and customer average interruption duration index ("CAIDI").[49] This is one of the ways in which power system reliability is measured for most customers.

In contrast to shortages of generation,[50] every day events such as motor vehicle accidents involving power poles and weather related events such as high winds causing tree branches to fall

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[44] NERC has five defined stages to measure reliability of the bulk electric system ("BES"):

> 1. The BES does not experience instability, uncontrolled separation, cascading, or voltage collapse under normal operating conditions and when subject to predefined disturbances.
>
> 2. BES frequency is maintained within defined parameters under normal operating conditions and when subject to predefined disturbances.
>
> 3. BES voltage is maintained within defined parameters under normal operating conditions and when subject to predefined disturbances.
>
> 4. Adverse reliability impacts on the BES following low- probability disturbances (*e.g.*, multiple contingences, unplanned and uncontrolled equipment outages, cyber security events, and malicious acts) are managed.
>
> 5. Restoration of the BES after major system disturbances that result in blackouts and widespread outages of BES elements is performed in a coordinated and controlled manner.

North American Electric Reliability Corporation, *Informational Filing on the Definition of "Adequate Level of Reliability"* at 6-10, Docket No. RR06-1 (May 10, 2013), *available at* https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13256848. A copy of this document is attached as Appendix A-14.

[45] *NERC State of Reliability 2017 Report* at vi.

[46] The nation's balancing authorities are generally viewed as preforming competently at ensuring that operation of the bulk electric system occurs within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.

[47] *See, e.g.,* Rule 4901:1-10-10, Ohio Administrative Code.

[48] SAIFI represents the average number of interruptions per customer. SAIFI is calculated by dividing the total number of customer interruptions by total number of customers served.

[49] CAIDI represents the average interruption duration or average time to restore service per interrupted customer. CAIDI is calculated as the sum of customer interruption durations divided by total number of customer interruptions.

[50] The equivalent forced outage rate for the U.S. generation fleet during 2016 was 7.1 percent. *NERC State of Reliability 2017 Report* at 116. All regions of the country currently have adequate reserve margins to address forced outages. *Id. at 137-138.*

onto distribution lines may result in power outages to individual customers. For the vast majority of customers, the frequency of these type of distribution outages are generally much higher than outages due to the lack of generation capacity.[51]

Reliability of the electric grid is assured through a continuous review of system conditions that analyze system conditions on a second by second basis, day ahead and many years ahead to assess evolving system conditions.[52]

Reliability planning is often a tradeoff between costs and the desire for uninterrupted service. While it would be virtually impossible to have a 100% reliable power system, steps to achieve increased levels of reliability (at least measured in terms of interruptions to ultimate customers) follow the law of diminishing returns. Few, if any, customers are willing to pick up the tab for completely uninterrupted service.[53]

Current NERC reliability standard scenario requires the evaluation of system operation under N-1, N-1-1, and N-2 and others contingencies, which assume different elements of the system are out of service at any given time. These contingencies are required under the rubric of "reliability" but are intended to ensure that the system is resilient under various operational scenarios. If anything, further reliability efforts should focus on cyber-security and the various "soft" systems that are necessary to keep the system in balance and reliable.[54]

System security, or operational reliability, does not result from a singular condition, such as the percentage of a systems' capacity that operates in so-called "baseload" mode. To maintain operational reliability, system operators use a combination of strategies, tool, procedures, practices, and resources to keep the entire system in balance as conditions change on a moment to moment basis.[55]

Two recent hurricanes that recently struck the nation[56] provide good illustrations of the disconnect between the Proposed Rule (holding up nuclear and coal-fired units as being indispensable to system reliability) and what happens in the real-world. During both hurricanes,

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[51] Analysis Group, *Electricity Markets, Reliability and the Evolving U.S. Power System* at 41 (June 2017), *available at* https://sites.hks.harvard.edu/hepg/Papers/2017/ag_markets_reliability_final_june_2017.pdf ("*Electricity Markets, Reliability and the Evolving U.S. Power System*"). A copy of this document is attached as Appendix A-15.

[52] *Id*.

[53] It should be noted that some customer such as hospitals that provide life essential services will take steps such as having on site back-up generation to try to ensure available power at all times.

[54] On October 6, 2017, FERC Staff issued a report offering recommendations to help users, owners, and operators of the bulk-power system assess their risk, compliance and overall cyber security. The findings in the report are based on lessons learned from several non-public audits of registered entities. These lessons learned can help facilitate compliance with mandatory reliability standards also, more generally, will facilitate efforts to improve the security of the nation's electric grid. *See* Federal Energy Regulatory Commission, *2017 Staff Report* (Oct. 6, 2017), *available at* https://www.ferc.gov/legal/staff-reports/2017/10-06-17-CIP-audits-report.pdf ("*FERC 2017 Staff Report*"). A copy of this document is attached as Appendix A-16.

[55] *Electricity Markets, Reliability and the Evolving U.S. Power System* at 46.

[56] Hurricanes Harvey and Irma.

the availability of the generating fleet was sufficient to serve available demand, although there were limited disruptions in the availability of specific generating facilities.[57] There were no reportable stage one through stage five reliability events as defined by NERC. However, service to millions of customers was disrupted due to widespread damage to transmission and distribution facilities. For example, at its peak, Hurricane Irma left almost seven million Florida customers without power.[58] However, in anticipation of the widespread damage that the hurricane was likely to cause electric delivery systems (as opposed to electric production facilities), power companies cooperatively pre-staged hundreds of line crews and tree crews from across the country just out of harm's way so that they could be dispatched quickly once weather conditions permitted the start of the immense task of restoring service to almost seven million customers.[59] Incredibly, for most customers within the state, power restoration was completed within ten days of a Category 4 hurricane.[60] The pre-staging of line crews in anticipation of storm damage and the hardening of the distribution system in the wake of prior hurricanes are examples of efforts that enhance the ability to meet consumers' needs. Notably, these efforts have no relationship to a particular generation fuel type and have no relationship to an on-site 90-day supply of fuel at a generating facility.

Topic: **Need for Reform**

Question 2: **The proposed rule references the events of the 2014 Polar Vortex, citing the event as an example of the need for the proposed reform. Do commenters agree? Were the changes both operationally and to**

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[57] NRG coal-fired units in Texas had to switch to natural gas after heavy rains rendered their coal piles (whether or not 90 days or more) unsuitable for use. *See* Platts, *Harvey's rain caused coal-to-gas switching: NRG Energy* (Sept. 27, 2017), *available at* https://www.platts.com/latest-news/electric-power/houston/harveys-rain-caused-coal-to-gas-switching-nrg-21081527 (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-17.

In Florida, Florida Power & Light shut down one unit at the Turkey Point generating facility, presumably over the perceived risk of the loss of off-site power. *See* Miami Herald, FPL shuts down one nuclear reactor at Turkey Point (Sept. 9, 2017), available at http://www.miamiherald.com/news/weather/hurricane/article172266962.html (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-18. The St. Lucie plant was also shut down. Both generating facilities had been restored to 100% power by September 18, 2017. *See* U.S. Energy Information Administration, *Status of U.S. Nuclear Outages* (Sept. 18, 2017), *available at* https://www.eia.gov/nuclear/outages/#/?day=9/18/2017. A copy of this document is attached as Appendix A-19.

[58] USA Today, *Nearly 7 million without power in Florida as Hurricane Irma pounds the state* (Sept. 10, 2017), *available at* https://www.usatoday.com/story/news/nation-now/2017/09/10/more-than-3-million-without-power-florida-hurricane-irma-makes-landfall-keys/651078001/ (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-20.

[59] *See* Greenville Online, *Hurricane Irma: Hundreds of tree crews staged, ready for storm cleanup* (Sept. 10, 2017), *available at* http://www.greenvilleonline.com/story/news/2017/09/10/hurricane-irma-hundreds-tree-crews-staged-ready-storm-cleanup/652225001/ (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-21. *See also* Fortune, *Utility Crews Stream Into Florida for Hurricane Irma Jobs* (Sept. 9, 2017), *available at* http://fortune.com/2017/09/09/hurricane-irma-jobs-florida-utility-crews/ (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-22.

[60] *See* The News-Herald, *Power is back on in Florida, but utilities still under fire* (Sept. 20, 2017), *available at* http://www.news-herald.com/article/HR/20170920/NEWS/170929939 (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-23.

the RTO/ISO markets in response to these events effective in addressing issues identified during the 2014 Polar Vortex?

Response:

PJM took a number of steps immediately after the 2014 Polar Vortex to test generators and ensure better generator performance during extreme cold conditions. In doing so, PJM considered the context of other changes occurring in the industry.[61] These steps preceded PJM's filing and the Commission's acceptance of the Capacity Performance rules. The Capacity Performance rules added another layer of protection to these initial efforts by both providing financial support for greater generator availability objectives and levying stiffer penalties for generator non-performance under a "no excuses" approach. These initiatives cost consumers money, more than what consumers would have paid under pre-Polar Vortex rules. PJM has claimed that the combination of these various initiatives is adequate to ensure year-round generator performance. No further steps are necessary. The little-discussed 2015 Polar Vortex[62] showed much better generator performance, and resulted in no system emergency conditions, even though the full extent of the Capacity Performance rules had not yet taken effect.

In a statement provided by PJM on April 1, 2014, then-Executive Vice President-Operations Michael Kormos stated that during the 2014 Polar Vortex "Natural gas interruptions, although significant, removed less than five percent of the total capacity required to meet demand on January 7 [2014], while equipment issues associated with both coal and natural gas units made up the far greater proportion of forced outages."[63] Also, "All conventional forms of generation, including gas, coal and nuclear plants were challenged by the extreme conditions."

The following charts show that the vast majority of unit outages during the 2014 Polar Vortex and the 2015 Polar Vortex were not the result of natural gas fuel supply disruptions:

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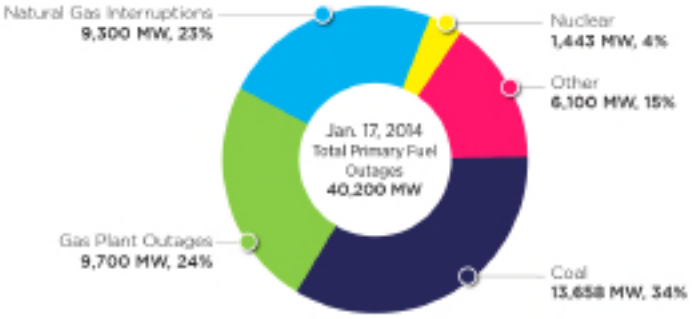
[61] *See* PJM Interconnection, L.L.C., PJM response to consumer reports on 2014 winter pricing, *available at* http://www.pjm.com/-/media/documents/reports/20140919-pjm-response-to-consumer-reports-on-2014-winter-pricing.ashx?la=en ("*PJM Response on 2014 Winter Pricing*"). A copy of this document is attached as Appendix A-24.

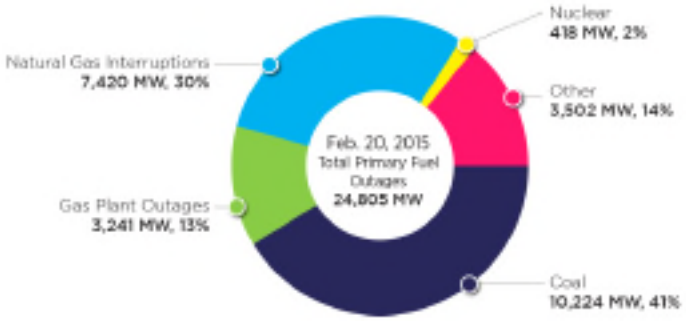
[62] *See* The Washington Post, *Polar vortex brings more historic cold in eastern U.S.* (Feb. 20, 2015), *available at* https://www.washingtonpost.com/news/capital-weather-gang/wp/2015/02/19/arctic-outbreak-shatters-records-in-eastern-u-s-coldest-yet-to-come/?utm_term=.bf832f7eec40 (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-25.

[63] *Winter 2013-2014 Operations and Market Performance in Regional Transmission Organizations and Independent System Operators*, Statement of Michael J. Kormos at 4, Docket No. AD14-8-000 (Apr. 1, 2014), *available at* https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13502862. A copy of this document is attached as Appendix A-26.

2014 Unit Performance:



2015 Unit Performance:



NERC's after-the-fact analysis of the 2014 Polar Vortex also concludes that the causes of generator unavailability were widespread and included issues such as coal piles freezing.[64] Thus, the presumption (in the Proposed Rule) that a 90-day on-site supply of fuel will ensure grid resiliency is not factually supported. Moreover, the presumption that the issues revealed by the 2014 Polar Vortex have not been comprehensively and adequately addressed by PJM and by the Commission is invalid.

Topic:	**Need for Reform**
Question 3:	**The proposed rule also references the impacts of other extreme weather events, specifically hurricanes Irma, Harvey, Maria, and superstorm Sandy. Do commenters agree with the proposed rule's characterization of these events? For extreme events like hurricanes, earthquakes, terrorist attacks, or geomagnetic disturbances, what impact would the proposed rule have on the time required for system**

[64] North American Electric Reliability Corporation, *Polar Vortex Review* at 3 (Sept. 2014), *available at* http://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept_2014_Final.pdf. A copy of this document is attached as Appendix A-27.

restoration, particularly if there is associated severe damage to the transmission or distribution system?

Response:

The last clause of this question is critical, when assessing potential answers in light of the Proposed Rule. The Proposed Rule focuses on generation availability among certain segments of the generation portfolio, nothing more. Extreme events often take a much larger toll on transmission and distribution systems than on individual generators, as individual generators are engineered to withstand such events or, if individual units are taken off-line, other units are available (under pre-planned scenarios) and dispatched to pick up the supply stack. For example, during Hurricane Irma, almost seven million customers in Florida lost power due to widespread damage to transmission and distribution facilities. In contrast, disruptions to generation facilities were limited and were precautionary in anticipation of the possible loss of off-site power.

For extreme events that have significant impacts on the transmission and distribution system, restoration efforts may be impacted more significantly by the availability of black start capacity.[65] Coal and nuclear units, the most likely facilities to meet the Proposed Rule's proposed 90-day on-site fuel eligibility threshold, lack black start capability.[66]

The Proposed Rule would likely have no significant impacts on restorations efforts following a significant weather event such as a hurricane. During such events, the vast majority of damage occurs to transmission and distribution infrastructure and that is where restoration resources must be dispatched and focused. And, as previously noted, Hurricane Harvey deluged the State of Texas with so much rain that some coal-fired plants were forced to switch to natural gas after their coal piles got too wet to burn. The Proposed Rule has no answer for these circumstances.

Topic: **Need for Reform**

Question 4: **The proposed rule references the retirement of coal and nuclear resources and a concern from Congress about the potential further loss of valuable generation resources as a basis for action. What impact has the retirement of these resources had on reliability and resilience in RTOs/ISOs to date? What impact on reliability and resilience in RTOs/ISOs can be anticipated under current market constructs?**

Response:

[65] Black start capacity refers to the ability of a generating facility to supply electricity to the grid without needing to rely upon an outside source of power. Typically, combustion turbines, hydroelectric facilities, diesel generating facilities, and battery storage are capable of providing black start service.

[66] In fact, as previously noted, even the mere possibility of the loss of offsite power has resulted in nuclear plant shutdowns.

PJM and MISO have both experienced substantial retirements of coal-fired generation, and both RTOs have more than adequate generation supply in the current post-retirement world.[67] Certain individual nuclear units may be retired in the near future, but most nuclear units and large amounts of coal-fired generation continue to receive revenues that keep them financially viable. The bottom-line is that market forces have produced the necessary replacement generation to accommodate the loss of inefficient, costly, and antiquated coal-fired generation and are adequate to replace the loss of inefficient nuclear generation. These conclusions are consistent with the conclusions of the recently issued Staff Report to the Secretary on Electricity Markets and Reliability.[68]

Moreover, PJM noted in the wake of the 2014 Polar Vortex that "Of the generators that [we]re expected to retire before winter 2014/2015 less than half of the units were able to run and only half of their capacity was available at the peak on January 7."[69] PJM's Report on the 2015 Winter provided this table for both the 2014 Polar Vortex and 2015 Polar Vortex performances of the soon-to-be retired generators.[70]

Retiring Generation	Jan. 7, 2014 19:00	Feb. 20, 2015 08:00
Installed Generation	14,036	11,560
Generation Online	7,273 (52%)	5,655 (49%)
Total Outages (Planned, Maintenance, Forced)	5,333 (38%)	3,549 (31%)
Forced Outages	5,222 (37%)	3,496 (30%)
Not Called	1,041 (7%)	1,971 (17%)

Overall, soon-to-be-retired generation has a forced outage rate that is 4-6 times higher than the typical winter forced outage rate (about 7%). Such performance should call into question the reliability (or "resilience") value that could be provided from these predominantly coal-fired generators that appear to have reached the end of their useful life.

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[67] The most recent PJM auction for the 2020/2021 Delivery Year cleared reserves of 23.3%, or 6.7% higher than the target reserve margin of 16.6%. *See* PJM Interconnection, L.L.C., *2020/2021 RPM Base Residual Auction Results, available at* http://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2020-2021-base-residual-auction-report.ashx?la=en. A copy of this document is attached as Appendix A-28. MISO is also projecting more than adequate reserves. *See* Organization of MISO States and Midcontinent Independent System Operator, Inc., *2017 OMS MISO Survey Results* (June 2017), *available at* https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/Workshops%20and%20Special%20Meetings/2017/20170616%20OMS-MISO%20Survey%20Results%20Conference%20Call/2017%20OMS-MISO%20Survey%20Results.pdf. A copy of this document is attached as Appendix A-29.

[68] *DOE Staff Report to the Secretary on Electricity Markets and Reliability* at 13.

[69] *PJM Response on 2014 Winter Pricing* at 29.

[70] PJM Interconnection, L.L.C., *2015 Winter Report* at 18 (May 13, 2015), *available at* http://www.pjm.com/-/media/library/reports-notices/weather-related/20150513-2015-winter-report.ashx?la=en. A copy of this document is attached as Appendix A-30.

Recent PJM analysis further highlights improved reliability performance of replacing inefficient generation with new technology. In its most recent update of the required Installed Reserve Requirement, PJM provided analysis indicating significantly improved projected Forced Outage Rates for 2021 due to the replacement of another 7,000 MW of primarily old coal generation with an aggregate forced outage rate of 14.56% with new gas-fired generation that has an aggregate forced outage rate of 4.42%.[71]

Accordingly, the system appears to be more reliable (and, depending on the definition, more "resilient") with this market-driven resource turn-over, at least from an outage rate/unit performance consideration. Any Commission interference with this market-driven reliability improvement should be for the purpose of facilitating easier entry of more reliable and efficient generation, and easier exit of inefficient and less dependable generation – the exact opposite of what the Proposed Rule would seek to accomplish.

Topic: **Need for Reform**

Question 5: **Is fuel diversity within a region or market itself important for resilience? If so, has the changing resource mix had a measurable impact on fuel diversity, or on resilience and reliability?**

Response:

Some degree of fuel diversity may contribute to increased reliability. Actual data support the conclusion that fuel diversity within PJM and MISO has increased in recent years, contrary to the assumed predicate for the Proposed Rule.

The resource mix within PJM has become more evenly balanced over time. In 2005, coal and nuclear resources generated 91 percent of the electricity on the PJM system. Over time, policy initiatives, technology improvements, and economics spurred a shift from coal to natural gas and renewable generation. From 2010 to 2016 in PJM, coal-fired units made up 79 percent of the megawatts retired and natural gas and renewables made up 87 percent of new megawatts placed in service. PJM's installed capacity in 2016 consisted of 33 percent coal, 33 percent natural gas, 18 percent nuclear, and 6 percent renewables (including hydro).[72]

A similar trend is evident in MISO. In 2005, MISO's generation fleet was comprised primary of coal providing 76% of electricity within the region. By 2016, coal had dropped to just 46% of the region's supply and projections are that coal could decrease further to as low as 30% of the region's supply over the next decade and a half. Coal has been displaced by increased natural

[71] PJM Interconnection, L.L.C., *2017 IRM Study Results* at 7 (Oct. 12, 2017), *available at* http://www.pjm.com/-/media/committees-groups/committees/pc/20171012/20171012-item-03-2017-irm-study.ashx ("*2017 IRM Study Results*"). A copy of this document is attached as Appendix A-31.

[72] *PJM's Evolving Resource Mix and System Reliability* at 9.

gas and renewable resource, an end result that has resulted in greater fuel diversity than previously existed.[73]

In the past, more than 50% of the generation was coal-fired, which made MISO and PJM highly dependent on a single fuel source. Natural gas generation, renewable generation, and some new hydro has substituted for these regions' heavy reliance on coal, thus contributing to higher levels of fuel diversity and, arguably, greater "resilience". The Proposed Rule threatens to reverse that positive trend.

Topic: **Eligibility – *General Eligibility Questions***

Question 1: **In determining eligibility for compensation under the proposed rule, should there be a demonstration of a specific need for particular services? What should be the appropriate triggering and termination provisions for compensation under the proposed rule?**

Response:

The Commission has always operated from a foundation that compensation must be premised upon a need for the service. FERC's prudence standard embodies this requirement. The Proposed Rule is attempting to create a need – under the guise of "resilience" - where no need exists. Under FERC precedent, any compensation provided to units as proposed in the Rule would trigger sustainable prudence objections – there is simply no need to compensate certain types of generators as proposed in the Proposed Rule.

Both PJM and MISO currently have in place rules that ensure sufficient compensation for generators that have announced retirement but are determined by the RTO to be still needed for reliability. Within PJM these rules are referred to as reliability must-run ("RMR") resources. MISO refers to such resource as system support resources ("SSR"). In both cases the RTO rules provide for compensation of existing generators to fully reimburse at least their going-forward costs until such time as a reliable solution (*e.g.*, a transmission upgrade, other new generation entering service) can be put in place to allow the existing generation facility to retire.

PJM

PJM, in Part V of its currently approved Open Access Transmission Tariff ("Tariff"), requires a Generation Owner to provide notice of any proposed deactivation in writing to PJM no later than 90 days prior to the proposed deactivation date for the generating unit. PJM will promptly provide a copy of such notice to the Market Monitoring Unit.

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[73] *See* Midcontinent Independent System Operator, Inc., *Adapting to Change: Embracing Uncertainty and Creating Value in the Heartland* (Aug. 6, 2017), *available at* http://www.ncsl.org/Portals/1/Documents/energy/Energy_Policy_K_Bennet_31589.pdf. A copy of this document is attached as Appendix A-32.

Within 30 days of the receipt of the Generation Owner's notice pursuant to section 113.1 of this Tariff, PJM shall inform the Generation Owner whether the deactivation of the generating unit would adversely affect the reliability of the Transmission System. In the event PJM determines the deactivation of Generation Owner's generating unit would adversely affect the reliability of the Transmission System absent upgrades to the Transmission System, PJM shall notify the Generation Owner of the reliability concerns. Such notice shall (1) identify the specific reliability impact resulting from the proposed Deactivation of the generating unit; and (2) provide an initial estimate of the period of time it will take to complete the Transmission System reliability upgrades necessary to alleviate the reliability impact. Regardless of whether the deactivation of the generating unit would adversely affect the reliability of the Transmission System, the Generation Owner may deactivate its generating unit, subject to the notice requirements in section 113.1 of this Tariff.

Within 60 days of Generation Owner's notice pursuant to section 113.1 of this Tariff, the Generation Owner shall inform PJM whether the generating unit proposed for deactivation will continue operating beyond its desired deactivation date during the period of construction of the Transmission System reliability upgrades necessary to alleviate the reliability impact resulting from the deactivation of the generating unit. If the generating unit will continue operating, the Generation Owner will provide PJM with an updated estimate of the amount of any project investment and the time period the generating unit would be out of service for repairs, if any, that would be required to keep the unit in, or return the unit to, operation.

For generating units that will continue operating beyond their desired deactivation dates, PJM shall (a) within 75 days of Generation Owner's notice pursuant to section 113.1 of this Tariff, provide an updated estimate of the period of time it will take to complete the Transmission System upgrades necessary to alleviate the reliability impact; and (b) within 90 days of Generation Owner's notice pursuant to section 113.1 of this Tariff, post on its internet site full details of the transmission upgrades necessary to alleviate the reliability impact that would result from the deactivation of the generating unit. Upon receipt of notification from the Transmission Provider that deactivation of the generating unit would cause reliability concerns, the Generation Owner shall immediately be entitled to file with the Commission a cost of service rate to recover the entire cost of operating the generating unit until such time as the generating unit is deactivated pursuant to this Part V ("Cost of Service Recovery Rate"). In the alternative, the Generation Owner may elect to receive the Deactivation Avoidable Cost Credit provided under this Part V.

Revenues are collected via PJM's cost allocation to zonal load and members with firm withdrawal rights. These cost allocations are determined by PJM based on the beneficiaries of generation remaining in operation. These beneficiaries pay Generation Owners a share of the Deactivation Avoidable Cost Rate or the FERC-approved Cost of Service Recovery Rate, based on these beneficiaries' respective transmission obligations.

MISO

In the case of MISO Attachment Y-1 to MISO's currently approved open access transmission tariff ("Tariff") includes its generic form of an SSR agreement. Under MISO's Tariff, market participants that have decided to retire or suspend a generation resource must submit a

notice (Attachment Y Notice), pursuant to Attachment Y (Notification of Potential Resource/SCU Change of Status) of the Tariff, at least 26 weeks prior to the resource's retirement or suspension effective date. During this 26-week notice period, MISO will conduct a study (Attachment Y Study) to determine whether all or a portion of the resource's capacity is necessary to maintain system reliability, such that SSR status is justified. If so, and if MISO cannot identify an SSR alternative that can be implemented prior to the retirement or suspension effective date, then MISO and the market participant shall enter into an agreement, as provided in Attachment Y-1 (Standard Form SSR Agreement) of the Tariff, to ensure that the resource continues to operate, as needed.[74] The SSR agreement is filed with the Commission and specifies the terms and conditions of the service, including the hourly compensation to be provided to the resource. For each SSR agreement filed with the Commission, a separate rate schedule must be filed to provide for the costs identified in the SSR agreement to be recovered from the identified beneficiaries, in accordance with the SSR cost allocation provision in section 38.2.7.l of MISO's Tariff.

The Commission requires MISO to file under section 205 of the FPA for cost recovery at the time it seeks to charge customers for SSR costs.[75] MISO's Tariff states that the SSR Unit owner will be compensated for its full cost of service, and the hourly component of this compensation is included in the SSR agreement.[76] For determination of compensation beyond the hourly compensation included in the SSR agreement, the Tariff provides for an SSR Unit owner to submit a section 205 filing stating such additional compensation.[77] For any such compensation element that is sought by the SSR Unit owner in its own section 205 filing, the SSR agreement that MISO files must indicate that it incorporates by reference the compensation element that the SSR Unit owner is ultimately authorized to recover through the SSR Unit owner's section 205 filing.[78]

Comparison: Retirements vs. RMRs/SSRs

The data show that, notwithstanding a large number of generation retirements in the recent past (particularly among coal-fired generation) in both MISO and PJM, the number of SSR arrangements in MISO and RMR arrangements in PJM has been relatively low.

MISO[79]

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[74] *See Midwest Indep. Transmission Sys. Operator, Inc.,* 108 FERC ¶ 61,163, order on reh'g, 109 FERC ¶ 61,157 (2004).

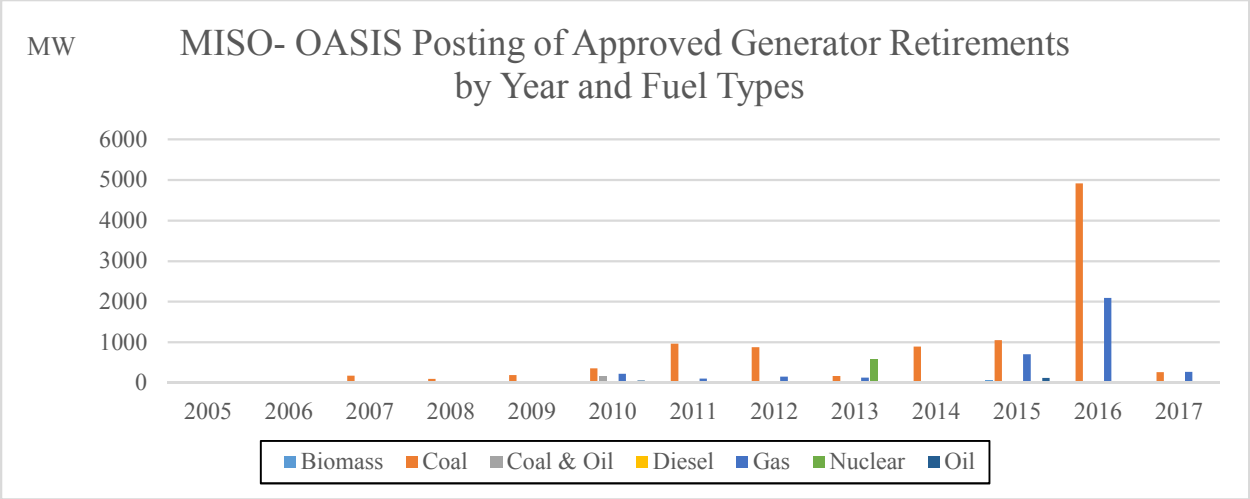
[75] *See Midwest Indep. Transmission Sys. Operator, Inc.,* 140 FERC ¶ 61,237, at P 140 (2012) (2012 SSR Order).

[76] *See Ameren Energy Resources Generating Co. v. Midcontinent Indep. Sys. Operator, Inc.,* 148 FERC ¶ 61,057, at P 87 (2014) (Ameren); *see also* MISO, FERC Electric Tariff, Module C, § 38.2.7.j (SSR Unit Compensation) (50.0.0).

[77] *See Midcontinent Indep. Sys. Operator, Inc.,* 156 FERC ¶ 61,116, at P 47 (2016) (SSR Tariff Revision Order*); see also* MISO, FERC Electric Tariff, Module C, § 38.2.7.j(iii) (SSR Unit Compensation) (50.0.0).

[78] *See Ameren Energy Resources Generating Co. v. Midcontinent Indep. Sys. Operator, Inc*., 153 FERC ¶ 61,062, at P 67 (2015) (*Ameren II*).

[79] OASIS, *Generator Retirements as of June 1, 2017, available at* http://www.oatioasis.com/woa/docs/MISO/MISOdocs/OASIS_Posting_of_Approved_Generator_Retirements_(Public)_2017-06-01.pdf. A copy of this document is attached as Appendix A-33.



FERC Staff's RTO Common Metrics Report provides some detail about the number of SSRs that have been filed by generators in MISO (and in other ISOs/RTOs).[80] In MISO, as of 2014 (the Report does not provide any more recent updates), there were 16 SSRs totaling 1,024 MWs.[81]

PJM

Since 2011, there have been many generation retirements in PJM, as evident from the following chart:[82]

[80] *See* Federal Energy Regulatory Commission, *Common Metrics Report*, Docket No. AD14-15-000 (revised Aug. 2017), *available at* https://ferc.gov/legal/staff-reports/2016/08-09-common-metrics.pdf. A copy of this document is attached as A-34.

[81] *See Midwest Independent Transmission System Operator, Inc.,* 144 FERC ¶ 61,151(August 26, 2013) (43B Harbor Beach ER13-1225-000 95 MW); *Midwest Independent Transmission System Operator, Inc.,* 150 FERC ¶ 61,238 (March 31, 2015)(43C Edwards 1 90 MW). Orders were also issued in 2013 and 2014 authorizing SSR Status for the following: 43D Gaylord 40 MW Letter Order, Docket Nos. ER14-109-000 and ER14-111-000 (December 12, 2013); 43E Straits Unit 1 10 MW Letter Order Docket No. ER14-113-000; 43F Coleman Units 1-3 443 MW, Letter order accepting Midwest Independent System Operator, Inc.'s filing of a Settlement Agreement with Big Rivers Electric Corp. under ER14-292 et al. (July 28, 2016); *Midcontinent Independent System Operator, Inc.,* 147 FERC ¶ 61,004 (April 1, 2014)(43G Presque Isle Units 5-9 344 MW ER14-1243); *Midcontinent Independent System Operator, Inc.,* 147 FERC ¶ 61,199 (June 13, 2014)(43H White Pine Unit 1 20 MW); *Midcontinent Independent System Operator, Inc.,* 150 FERC ¶ 61,147 (February 15, 2015)(43I White Pine Unit 2 20 MW); *Midcontinent Independent System Operator, Inc.,* 160 FERC ¶ 61,014 (August 22, 2017)(43J Teche Unit 3 335 MW).

[82] *IMM Quarterly State of the Market Report for PJM at 518.*

Table 12-5 Summary of PJM unit retirements by fuel (MW): 2011 through 2020

	Coal	Diesel	Heavy Oil	Hydro	Kerosene	Landfill Gas	Light Oil	Natural Gas	Nuclear	Waste Coal	Wind	Wood Waste	Total
Retirements 2011	543.0	0.0	0.0	0.0	0.0	0.0	131.0	522.5	0.0	0.0	0.0	0.0	1,196.5
Retirements 2012	5,907.9	0.0	0.0	0.0	0.0	0.0	788.0	250.0	0.0	0.0	0.0	16.0	6,961.9
Retirements 2013	2,558.9	2.9	166.0	0.0	0.0	7.0	3.0	82.0	0.0	31.0	0.0	8.0	2,858.8
Retirements 2014	2,239.0	50.0	0.0	0.0	184.0	15.3	188.0	294.0	0.0	0.0	0.0	0.0	2,970.3
Retirements 2015	7,064.8	0.0	0.0	0.0	644.2	2.0	222.3	1,319.0	0.0	0.0	10.4	0.0	9,262.7
Retirements 2016	243.0	51.0	0.0	0.5	0.0	9.9	22.0	74.0	0.0	0.0	0.0	0.0	400.4
Retirements 2017 (Jan-Jun)	1,461.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0	0.0	0.0	0.0	1,495.0
Planned Retirements (Jul 2017 and later)	5,212.0	2.4	148.0	0.0	0.0	0.8	30.6	661.8	1,419.5	0.0	0.0	0.0	7,475.1
Total	25,229.6	106.3	314.0	0.5	828.2	35.0	1,384.9	3,237.3	1,419.5	31.0	10.4	24.0	32,620.7

Since 2011, a total of 2,444 MW has accepted an RMR agreement in PJM, a small fraction of the 32,600 MW of total deactivations that have occurred since 2011 or are planned to occur. Many of these RMR contracts have since expired. The list of RMRs since 2011 is as follows:

Cromby #1 – 144 MW (PECO zone)
Cromby #2 – 201 MW (PECO zone)
Eddystone #1 – 279 MW (PECO zone)
Eddystone #2 – 309 MW (PECO zone)
Ashtabula #5 – 244 MW (ATSI zone)
Eastlake #1 – 132 MW (ATSI zone)
Eastlake #2 – 132 MW (ATSI zone)
Eastlake #3 – 132 MW (ATSI zone)
Lake Shore 18 – 245 MW (ATSI)
B. L. England #2 – 155 MW(ACE zone)
B.L. England #3 – 148 MW (ACE zone)
Yorktown #1 and #2 – 323 MW(DOM zone)

Some additional units turned down RMR agreements, electing to retire rather than continue operation under an RMR. PJM issued a whitepaper in 2012 that presents recommendations to the PJM Board noting that 13,000 MW of proposed generator deactivations that PJM had received between November 2011-May 2012 resulted in baseline upgrade costs of $1.9 billion (RMRs for Ashtabula, Eastlake and Lake Shore came about in this window as well). Accordingly, even in the narrow window of 13,000 MW of generation deactivations, the RMRs represented only 885 MW (or 7%) of the total deactivation request.[83]

Also, below is a list of units that have announced planned future retirement.

[83] *See* PJM Interconnection, L.L.C., *Transmission Expansion Advisory Committee (TEAC) Recommendations to the PJM Board* (May 2012), *available at* http://www.pjm.com/-/media/committees-groups/committees/teac/20120614/20120614-pjm-board-whitepaper.ashx. A copy of this document is attached as Appendix A-35.

Table 12-7 Planned retirement of PJM units: as of June 30, 2017[23]

Unit	Zone	ICAP (MW)	Fuel	Unit Type	Projected Deactivation Date
GUDE Landfill	Pepco	0.8	Landfill Gas	DIESEL	24-Aug-17
Yorktown 1-2	Dominion	323.0	Coal	STEAM	14-Sep-17
Hopewell James River Cogeneration	Dominion	89.0	Coal	STEAM	31-May-18
Killen 2	DAY	600.0	Coal	STEAM	01-Jun-18
Stuart 1	DAY	577.0	Coal	STEAM	01-Jun-18
Stuart 2	DAY	577.0	Coal	STEAM	01-Jun-18
Stuart 3	DAY	577.0	Coal	STEAM	01-Jun-18
Stuart 4	DAY	577.0	Coal	STEAM	01-Jun-18
Stuart Diesels 1-4	DAY	2.4	Diesel	DIESEL	01-Jun-18
Killen CT	DAY	24.0	Light Oil	CT	01-Jun-18
Stuart Diesels 1-4	DAY	6.6	Light Oil	DIESEL	01-Jun-18
Sewaren 1	PSEG	104.0	Natural Gas	STEAM	01-Jun-18
Sewaren 2	PSEG	118.0	Natural Gas	STEAM	01-Jun-18
Sewaren 3	PSEG	107.0	Natural Gas	STEAM	01-Jun-18
Sewaren 4	PSEG	124.0	Natural Gas	STEAM	01-Jun-18
Bayonne Cogen Plant (CC)	PSEG	158.0	Natural Gas	STEAM	01-Nov-18
Spruance NUG1 (aka Spruance 1 Rich 1-2)	Dominion	115.5	Coal	STEAM	12-Jan-19
Spruance NUG2 (aka Spruance 2 Rich 3-4)	Dominion	85.0	Coal	STEAM	12-Jan-19
BL England 2	AECO	155.0	Coal	STEAM	30-Apr-19
BL England 3	AECO	148.0	Heavy Oil	STEAM	30-Apr-19
MH50 Markus Hook Co-gen	PECO	50.8	Natural Gas	STEAM	13-May-19
Three Mile Island Unit 1 Nuclear Generating Station	Met-Ed	805.0	Nuclear	NUCLEAR	30-Sep-19
Oyster Creek Nuclear Generating Station	JCPL	614.5	Nuclear	NUCLEAR	31-Dec-19
Sammis 1-4	ATSI	640.0	Coal	STEAM	31-May-20
Will County 4	ComEd	510.0	Coal	STEAM	31-May-20
Wagner 2	BGE	135.0	Coal	STEAM	01-Jun-20
Bay Shore 1	ATSI	136.0	Coal	STEAM	01-Oct-20
Edgecomb NUG (aka Edgecomb Rocky 1-2)	Dominion	115.5	Coal	STEAM	31-Oct-20
Total		7,475.1			

All of the generators shown on this list have been studied and, from this list, PJM has offered RMR contracts only to Yorktown 1-2 and England; PJM identified no reliability issues with any others that would justify an RMR contract. Accordingly, for pending deactivations, only 626 MW out of nearly 7,500 MW were determined to require RMRs.

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What these data confirm is that both MISO and PJM have accommodated large amounts of generation retirements – mostly coal-fired – with relatively few determinations that the retiring units were still needed for reliability. The Proposed Rule ignores these realities.

Topic: **Eligibility – *General Eligibility Questions***

Question 2: **As the proposed rule focuses on preventing premature retirements, should a final rule be limited to existing units or should new resources also be eligible for cost-recovery? Should it also include repowering of previously retired units? Alternatively, should there be a minimum number of MW or a maximum number of MW for resources receiving**

cost-of-service payments for resilience services? If so, how should RTOs/ISOs determine this MW amount? Should this also include locational and seasonal requirements for eligible resources?

Response:

American Manufacturers do not support adoption of any new rule. However, if a Final Rule is adopted, it can be crafted within the construct of existing RTO rules. Existing SSR and RMR rules, which function as exceptions outside of otherwise prevailing market dynamics, should serve as the foundation for any Final Rule and should be supplemented only as minimally necessary to meet well-defined reliability criteria and only for so long as a to-be-retired resource is needed to meet those well-defined reliability criteria. Additionally, any compensation under the Final Rule must be limited to verifiable going-forward costs necessary to keep eligible generating facilities operational. In no case should recovery of sunk costs or stranded costs be permitted. Additionally, existing facilities that have recognized impairments to long lived assets should not be permitted to alter the existing book value of existing facilities.[84]

Topic: **Eligibility – *General Eligibility Questions***

Question 3: **Are there other technical characteristics that should be required for an eligible unit besides on-site fuel capability? If so, what are those technical characteristics and what benefits do they provide? What types of resources can meet the proposed eligibility criteria of the proposed rule? What proportion of total current generating capacity does this represent?**

Response:

American Manufacturers do not support adoption of any Final Rule. However, if a Final Rule is adopted, it should not be technology dependent, but should be based on the ability of a particular generation resource to supply a product or service deemed necessary for reliable grid operations for which the RTO markets are not capable of providing compensation. Further, if a Final Rule is adopted, it should not adopt generically a guaranteed recovery of the resources' full costs of service.[85] Instead, any Final Rule should precisely identify any required product or service the Commission deems necessary that is not being provided or compensated for in regional power markets, and compensate the provider of that product or service accordingly. Each RTO should thereafter be afforded a reasonable period of time (at least six months) to work with its stakeholders to develop and propose market rule changes to comply with any Final rule.

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[84] *See, for example*, FirstEnergy Corp. and FirstEnergy Solutions Corp., *Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934* (10-Q) at Note 2 to Financial Statements (July 28, 2016), *available at* https://www.sec.gov/Archives/edgar/data/1031296/000103129616000102/fe-06302016x10q.htm ("FE's Q2 2016 10-Q"). A copy of this document is attached as Appendix A-36.

[85] Just and reasonable rates under the Federal Power Act have never guaranteed full cost recovery. Instead the appropriate standard is whether rates approved by the Commission provide the opportunity for full cost recovery. *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307 (1989).

Further, any final Rule should not mandate a one-size-fits-all compliance requirement. Each of the organized markets has developed regionally and has different and unique market rules, facts, and circumstances. A generically applicable Final Rule would likely cause distortions when applied to the unique market constructs that exist within each RTO.[86] Therefore, each RTO should be permitted to propose a unique plan to comply with any Final Rule.

Topic: **Eligibility – *General Eligibility Questions***

Question 4: **If technically capable of sustaining output for a sufficient duration (and meeting other relevant requirements), should resources such as hydroelectric, geothermal, dual-fuel with adequate on-site storage, generating units with firm natural gas contracts, or energy storage (each of which might have a demonstrable store of energy to draw upon to sustain an electrical output, if not necessarily fuel) also be eligible? Why or why not? If technical capability is the appropriate criterion for eligibility, what specific technical capability should be required to be eligible?**

Response:

American Manufacturers do not support adoption of any Final Rule. However, if a Final Rule is adopted, it should not be technology dependent but based on the ability of a particular generation resource to supply a product or service deemed necessary for reliable and resilient grid operations for which the RTO markets are not capable of providing compensation. The ability to sustain output for a minimum amount of time is not a product that is necessary to be incorporated into regional power markets. The RTOs have done a more than adequate job in their ability to proactively react and respond to the increasing presence of intermittent resources on the grid. There is simply no basis to conclude that an on-site 90-day supply of fuel contributes in any way to a necessary increase in grid reliability or resilience.

As previously noted, PJM has reported it could accommodate a system with as much as 86 percent of its resources fueled by natural gas.[87] The California ISO experienced smooth sailing during the August 2017 solar eclipse despite losing an estimated 3,400 megawatts of solar output midday.[88] From the standpoint of grid reliability, the ability of a generation resource to move quickly up or down is much more valuable to grid reliability than a 90-day inventory of fuel.

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[86] To be clear, American Manufacturers have long supported convergence of ISO/RTO market rules, to eliminate the costly seams that exist between RTO regions. A recommendation to craft the application of any Final Rule to match up with currently applicable individual RTO rules is intended to prevent short-term market distortions, and should not be viewed as detracting from American Manufacturers' preference for rule homogeneity across RTO regions.

[87] *PJM's Evolving Resource Mix and System Reliability* at page 5.

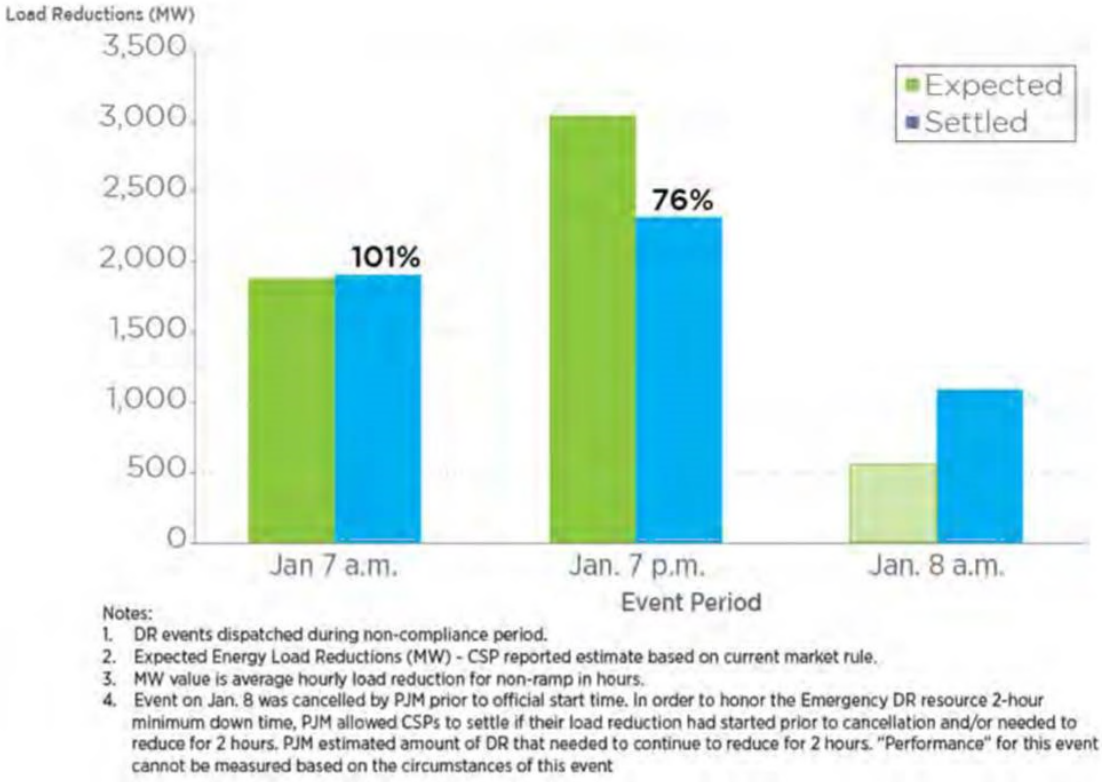
[88] Los Angeles Times, *Despite low solar power, California's electric grid ran smoothly during the eclipse* (Aug. 21, 2017), *available at* http://www.latimes.com/business/la-fi-eclipse-power-grid-20170822-story.html (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-37.

To the extent the experience of the Polar Vortex is relied upon as justification for the Proposed Rule, the proposed solution ignores the contributions of Demand Response. Targeting certain resources for enhanced cost recovery while ignoring others that contributed significantly to reliability during the Polar Vortex and other system stresses is unduly discriminatory.

With respect to Demand Response during the Polar Vortex, PJM made the following finding:

> Demand response, although not required to respond during the winter [in 2014], did respond and assisted in maintaining the reliability of the system. In fact, the total amount of demand response provided was larger than most generating stations. During the Polar Vortex, PJM called on demand response three times – the morning and evening of January 7 and the morning of January 8 throughout the RTO. Even though demand resources were not obligated to respond during this period, close to 25 percent of the demand response resources registered in PJM did respond and helped PJM manage the grid on the all-time winter peak day. This experience demonstrates the year-round value of demand response.

Figure 11: Polar Vortex Demand Response Performance



Notes:
1. DR events dispatched during non-compliance period.
2. Expected Energy Load Reductions (MW) - CSP reported estimate based on current market rule.
3. MW value is average hourly load reduction for non-ramp in hours.
4. Event on Jan. 8 was cancelled by PJM prior to official start time. In order to honor the Emergency DR resource 2-hour minimum down time, PJM allowed CSPs to settle if their load reduction had started prior to cancellation and/or needed to reduce for 2 hours. PJM estimated amount of DR that needed to continue to reduce for 2 hours. "Performance" for this event cannot be measured based on the circumstances of this event

If the Proposed Rule seeks to address resilience in any meaningful fashion, Demand Resources' cost-effective contributions to the overall reliability of the grid must not be ignored. Certainly, targeting Demand Resources would be a more cost-effective option than providing cost-support to legacy coal and nuclear units.

Topic: **Eligibility – *General Eligibility Questions***

Question 5: **The proposed rule would require that eligible resources be able to provide essential energy and ancillary reliability services and includes a non-exhaustive list of services. What specific services should a resource be required to provide in order to be eligible?**

Response:

American Manufacturers do not support adoption of any Final Rule. However, if a Final Rule is adopted, it should not be technology dependent but based upon the ability of a particular generation resource to supply a product or service deemed necessary for reliable and resilient grid operations for which the RTO markets are not capable of providing compensation.

American Manufacturers believe existing RTO markets, coupled with NERC standards, ensure that existing RTO markets and the generation resources interconnected to those markets are capable of supplying all of the necessary energy and ancillary reliability services, including but not limited to voltage support, frequency services, operating reserves, and reactive power. Further, having a 90-day supply of on-site fuel does not increase the ability of a generator to provide voltage support, frequency services, operating reserves, or reactive power. Additionally, as issued, the Proposed Rule does not require a generation resource provide any of these services, it only requires the resource be capable of providing such services.

Topic: **Eligibility – *General Eligibility Questions***

Question 6: **The proposed rule would limit eligibility to resources that are not subject to cost of service rate regulation by any state of local regulatory authority. How should the Commission and/or RTOs/ISOs determine which resources satisfy this eligibility requirement?**

Response:

It would be a tremendous drain of resources to require each RTO to inventory and identify the population of generation resources within their footprint that are not subject to cost of service regulation.[89] Again, American Manufacturers oppose adoption of a Final Rule. However, if a Final Rule is adopted, individual generator owners should be required to work with their RTO to determine eligibility in a manner similar to the way that each RTO manages SSR or RMR agreements. Each RTO would then file an application under section 205 of the Federal Power Act seeking to compensate that unit under cost-based rates (however cost-based is defined in the Final Rule, consistent with well-established Commission ratemaking standards).

American Manufacturers would also note that if a Final Rule is issued, any eligible generators that elect to receive cost-based compensation must be required to initiate a proceeding at the Commission to revoke any market-based rate authority they hold. As argued above, allowing generation owners to toggle, at their discretion, between market-based and cost-based rates does not product just and reasonable outcomes.

Topic: **Eligibility – *90-Day Requirement***

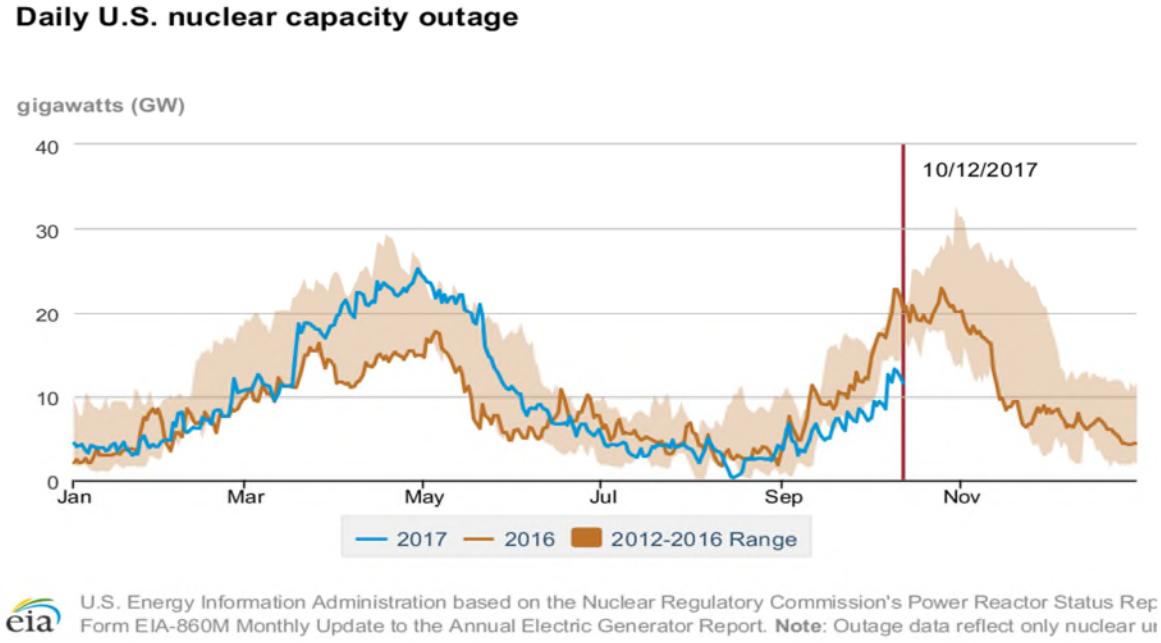
Question 1: **The proposed rule defines eligible resources as having a 90-day fuel supply. How should the quantity of a given resource's 90 days of fuel be determined? For example, should each resource be required to have sufficient fuel for 24 hours/day and sustained output at its upper**

[89] It should be noted that the Proposed Rule is extremely vague on what constitutes cost of service regulation, which will only prompt further legal fights if the rule is adopted in its current form. For example, does the recently enacted Illinois law and an order issued by the New York Public Commission that provides out of market support to select nuclear facilities in these states constitute a form of cost of service regulation for those units? If the Proposed Rule is adopted in any form by the Commission, this issue would need to be squarely addressed.

operating limit for the entire 90-day period? Would there be any need for regional differences in this requirement?

Response:

American Manufacturers do not believe there is any reasonable basis to rely on a requirement of a 90-day on-site fuel supply as the basis for eligibility under any Final Rule. Having 90 days of on-site fuel provides very little benefit if the unit is unavailable due to the typical lengthy planned refuel or annual maintenance outage, which can last upwards of 30, 60, and even 90 days. Nuclear generators represent about 100,000 MW of total capacity, and during fall and spring periods there are spans of 60 or more consecutive days when 15-20% of this capacity is out of service:[90]



Topic: **Eligibility – *90-Day Requirement***

Question 2: **Is there a direct correlation between the quantity of on-site fuel and a given level of resilience or reliability? Please provide any pertinent analyses or studies. If there is such a correlation, is 90 days of on-site fuel necessary and sufficient to address outages and adverse events? Or is some other duration more appropriate?**

Response:

[90] *See* U.S. Energy Information Administration, *Status of U.S. Nuclear Outages* (June 29, 2017), *available at* https://www.eia.gov/nuclear/outages/#/?day=6/29/2017. A copy of this document is attached as Appendix A-38.

American Manufacturers are not aware of any study or analysis that directly correlates the availability of a 90 day on-site supply of fuel with an increased level of grid reliability or resilience. There is certainly nothing in the Proposed Rule itself that supports the 90-day on-site fuel requirement.

Topic: **Eligibility – *Fuel Supply Requirement***

Question 1: **The proposed rule requires that resources must be in compliance with all applicable environmental regulations. How should environmental regulations be considered when determining eligibility? For example, if a unit that was capable of keeping 90-days of fuel on-site was subject to emission limits that would prevent it from running at its upper operating limit for 90 days, should that unit be eligible under this proposed rule?**

Response:

American Manufacturers do not support adoption of any Final Rule and do not believe having an on-site 90 day supply of fuel is a reasonable basis for any Final Rule. However, if a Final Rule is adopted with a 90-day on-site fuel requirement to be eligible, a generation resource must be capable of operating uninterrupted for 90 continuous days. GADS data should be required to demonstrate that the generation unit has in the past and continues to operate for a least 90 day periods.

Topic: **Eligibility – *Fuel Supply Requirement***

Question 2: **As the proposed rule references the need for resilience due to extreme weather events, including hurricanes, should there be any other eligibility criteria for the resource or fuel supply (e.g., storm hardening)? What considerations should be given to the vulnerability of 90-day fuel supplies to natural or man-made disasters such as extreme cold temperatures, icing, flooding conditions, etc. that may impact the on-site fuel supply?**

Response:

Having a 90-day onsite fuel supply does not contribute much, if anything, to grid reliability. As evidenced by recent hurricanes, coal-fired power plants were forced to switch to gas when coal piles became too wet to burn. Nuclear plants were proactively shut down when forecasts of wind speeds led to increased potential for the loss of off-site power. Coal piles have also been known to freeze during winter. Nuclear plants are sometimes derated during hot summer

months (as are coal units) when water temperature discharge limits are reached.[91] Algae blooms can also limit cooling water intake capacity, forcing temporary deratings. Flooding has also been known to knock off a power plant or two when those units are located near a river, as many coal-fired units are, sometime requiring years to return to service.[92]

Topic: **Eligibility – *Fuel Supply Requirement***

Question 3: **Does the vulnerability or non-availability of on-site fuel supplies vary depending upon fuel type, location, region, or other factors?**

Response:

As a practical matter, only nuclear-fueled generating facilities and perhaps some coal-fired generating facilities are physically capable of maintaining a 90 day supply of on-site fuel. Yet, many other generation resources, including solar, wind, run-of-the-river hydro, pumped hydro, and natural gas-fired units have access to continuous 90-day supplies of "fuel", albeit located "off-site".

Topic: **Implementation**

Question 1: **How would eligible resources receiving cost of service compensation under the proposed rule be committed and dispatched in the energy market?**

Response:

American Manufacturers do not support the adoption of a Final Rule. However, if a Final Rule is adopted, generation resources receiving cost of service compensation should be required to must offer their availability in all hours in which they are physically available to dispatch at their marginal cost of operation. Such assets should not be permitted to bid a market-based offer and protections should exist to guard against market power exercise and market misbehavior.

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[91] *See* Watts Up With That?, *River water temperature "crisis"* (June 3, 2012), *available at* https://wattsupwiththat.com/2012/06/03/river-water-temperature-crisis/ (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-39.

[92] *See* Pilot-Tribune & Enterprise, *Fort Calhoun Nuclear Station decreases power due to flooding* (June 20, 2014), *available at* http://www.enterprisepub.com/news/fort_calhoun/fort-calhoun-nuclear-station-decreases-power-due-to-flooding/article_a4221bb0-f8a8-11e3-b884-0017a43b2370.html

(last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-40. *See also* Omaha World-Herald, *Troubled Fort Calhoun nuke plant reaches repair milestone* (Oct. 29, 2013), *available at* http://www.omaha.com/news/troubled-fort-calhoun-nuke-plant-reaches-repair-milestone/article_006b8d50-5b3b-58c2-972e-d6e5266f6747.html (last accessed Oct. 19, 2017). A copy of this document is attached as Appendix A-41.

Topic: **Implementation**

Question 2: **How would eligible resources receiving cost based compensation under the proposed rule be considered in the clearing and pricing of centralized capacity markets?**

Response:

American Manufacturers do not support the adoption of a Final Rule. However, if a Final Rule is adopted, generation resources receiving cost of service compensation must be required to offer their availability into all available energy, capacity, and ancillary service markets, at each unit's actual marginal cost for that market. Any infra-marginal revenues received by that resource must be used to reduce its cost-based compensation. In no circumstance should a resource receiving cost-based compensation receive more than its cost of service, as calculated in accordance with the Commission's standard ratemaking principles. This approach would operate similarly to the compensation mechanisms available to SSR and RMR units.

Topic: **Implementation**

Question 3: **What is the expected impact of this proposed rule on entry of new generation, reserve margins, retirement of existing resources, and on resource mix over time?**

Response:

American Manufacturers do not support the adoption of a Final Rule. If a Final Rule is adopted, it can be expected to incentivize continued operations of otherwise uneconomic existing resource. If a Final Rule is adopted, it can be expected to reduce the entry of new resources as new resources will face competition from continued operation of otherwise uneconomic subsidized existing resources. Under such circumstances, technology innovation will be chilled. Further, the retention of older units that have been subject to failure to provide supply electricity when reliability was needed may have the effect of lowering reliability of the system as a whole by crowding out newer and more efficient natural gas-fired generation, as discussed above.[93]

Topic: **Implementation**

Question 4: **Should there be performance requirements for resources receiving compensation under the proposed rule? If so, what should the performance requirement be, and how should it be measured, or tested? What should be the consequence of not meeting the performance requirement?**

Response:

[93] *See PJM's 2017 IRM Study Results*.

American Manufacturers do not support adoption of a Final Rule. However, if a Final Rule is adopted, eligible generators receiving out-of-market compensation should be subject to performance requirements such as PJM's capacity performance rules. It would be unreasonable to require customers to pay full cost of service compensation and not have generators receiving such compensation perform during times of system need. If a Final Rule is adopted, a penalty for non-performance and a "three strikes and you are out" penalty should be imposed for repeated non-performance.[94]

Topic: **Implementation**

Question 5: **Should there be any restrictions on alternating between market-based and cost-based compensation?**

Response:

Yes. Generation resources must be prohibited from toggling between market-based rates and cost of service rates. As noted in the response to question 6 under eligibility, American Manufacturers recommend that any eligible generation resources under a Final Rule surrender their ability to receive market-based rates.

Topic: **Rates**

Question 1: **The proposed rule lists compensable costs that should be included in the rate as operating and fuel expenses, costs of capital and debt, and a fair return on equity and investment. Are there other costs that would be appropriate to be included in the rate? Would any of the listed costs be inappropriate for inclusion?**

Response:

There are no additional categories of costs that would be appropriate to consider for compensation. Additionally, as previously noted, any compensation under any Final Rule must be limited to verifiable going-forward costs necessary to keep eligible generating facilities operational. In no case should recovery of sunk costs or stranded costs be permitted. Further, existing facilities that have recognized impairments to long lived assets should not be permitted to alter the existing book value of existing facilities.[95]

[94] After three repeated penalties for failure to perform, the generation resource would forfeit future eligibility for compensation under cost of service rates.

[95] *See, for example*, FE's Q2 2016 10-Q at Note 2 to Financial Statements.

Topic: **Rates**

Question 2: **Should wholesale market revenues offset any cost of service payments stemming from the proposed rule?**

Response:

American Manufacturers do not support adoption of a Final Rule. However, if a Final Rule is adopted, any wholesale market revenues must be netted against any cost of service payments to produce a required just and reasonable rate.

Topic: **Rates**

Question 3: **How should RTOs/ISOs allocate the cost of the proposed rule to market participants?**

Response:

The costs that would emanate from the Proposed Rule, if it is adopted over the objections of wide swaths of the energy industry, should be allocated on the same basis as capacity costs are allocated (*i.e.*, on a $/MW basis or demand basis). The payments are for the availability of the generation – the actual operation of the generation is addressed through energy and ancillary service revenue streams. Consequently, the costs of the Proposed Rule should be allocated to market participants consistent with how capacity costs are currently allocated to market participants (*e.g.*, on a 5-coincident peak basis in PJM).

Topic: **Rates**

Question 4: **How would the requirement that eligible resources receive full cost recovery be reconciled with the requirement, as stated in the regulatory text, that resources be dispatched during grid operations?**

Response:

American Manufacturers do not support the adoption of a Final Rule. However, if a Final Rule is adopted, generation resources receiving cost of service compensation should be required to offer in the day-ahead markets their availability in all hours in which they are physically available to dispatch at their marginal cost of operation.

Topic: **Other**

Question 1: **The proposed requirement for submitting a compliance filing is 15 days after the effective date of any Final Rule in this proceeding, with**

the tariff changes to take effect 15 days after the compliance filings are due. Please comment on the proposed timing, both to develop a mechanism for implementing the required changes and to implement those changes, including whether or not such changes could be developed and implemented within that timeframe.

Response:

The proposed timeline is not reasonable or realistic. If a Final Rule is adopted, RTOs will need adequate time to modify their billing and settlement systems in order to implement any Final Rule. American Manufacturers expect that RTOs will provide their individual assessment of the required time to implement any Final Rule. Setting aside the need to establish just and reasonable cost-based rates, the required minimum time is likely to be, and should be, measured in months rather than days.

Topic: **Other**

Question 2: **Please comment on the proposed rule's estimated burden of $291,042 per respondent RTO/ISO, to develop and implement new market rules as proposed, including the potential software upgrades required to do so.**

Response:

American Manufacturers expect that RTOs will provide their responses to this question, but the cost estimate seems unreasonably low. Moreover, the estimated burden does not account for the substantial resource commitment that will be required for industry participants to vet, address, and acclimate to the new market rules.

Topic: **Other**

Question 3: **Please describe any alternative approaches that could be taken to accomplish the stated goals of the proposed rule.**

Response:

As the Commission is undoubtedly aware, discussions are ongoing within several RTOs (PJM, ISO New England) on potential changes to market rules to address state actions providing out-of-market subsidies to specific generation resources and whether market rule changes are appropriate to address such state actions. Instead of adopting a Final Rule, the Commission could direct RTOs to submit plans to provide compensation for any non-technology specific generation resource to supply a product or service that is deemed necessary to meet well-defined, measurable, and auditable reliability (or "resilience") requirements for which the RTO markets are not currently capable of providing compensation. The general and vague pronouncements in the Proposed Rule do not come close to meeting such requirements.

Topic: **Other**

Question 4: **What impact would the proposed rule have on consumers?**

Response:

The Proposed Rule, if adopted, can be expected to raise costs to ultimate consumers both on a short-run basis as the costs of cost-based rates for uneconomic units are recovered from consumers, and on a long-term basis as the resort to cost-based rates erodes the dynamic efficiencies that competitive markets would have otherwise provided to consumers, regardless of whether they are in regulated or de-regulated states.

The Proposed Rule also overlooks or ignores the fact that, at least in PJM, many of the resources that could be eligible for cost-based recovery under the Proposed Rule are already earning sufficient revenues in the PJM markets. The 2016 PJM State of the Market Report indicated that 41% of coal units received full recovery of avoidable costs, while the 2017 Second Quarter State of the Market Report stated that more than 75% of nuclear units received full cost recovery. While these reports are simply snapshots in time, they do demonstrate that efficient coal and nuclear units can compete in present markets. Subsidizing older, inefficient units, and not allowing market exit, only hurts the stand-alone viability of those plants that are presently recovering needed costs through markets and would require further subsidies to units that are now recovering costs due to the price-suppressive effects of subsidizing inefficient units – all based on the misguided belief that 90 days of fuel supply provides some meaningful grid benefit.

In short, the adverse effect on consumers would be immediate, and then would continue to ripple through the industry as the benefits of competitive markets are eroded.

Topic: **Other**

Question 5: **The Commission may take notice of relevant public information, including information in other Commission proceedings. If a commenter views information in another Commission proceeding as relevant to the proposed rule, please identify that information and explain how it is relevant to the proposed rule. Such information may include a filing previously submitted by the commenter.**

Response:

On May 1-2, 2017, the Commission held a technical conference to receive input on the interplay between state policy goals and the wholesale markets operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM.

FERC Staff identified five courses of actions (five paths) that were possible by the agency:

- Path 1 – Limited or No Minimum Offer Price Rule ("MOPR")
- Path 2 – Accommodation of State Actions
- Path 3 – Status Quo

- Path 4 – Pricing State Policy Choices
- Path 5 – Expanded MOPR

Written comments were submitted on June 23, 2017 and reply comments were submitted on July 14, 2017 in Docket No. AD17-11. American Manufacturers view this docket as relevant to this rulemaking proceeding.

On October 6, 2017, Commission Staff issued a report offering recommendations to help users, owners, and operators of the bulk-power system assess their risk, compliance and overall cyber security. The findings in the report are based on lessons learned from several non-public audits of registered entities. These lessons learned can help facilitate compliance with mandatory reliability standards and, more generally, facilitate efforts to improve the security of the nation's electric grid.[96] American Manufacturers view the information in the Staff's report as relevant to this proceeding.

* * *

American Manufacturers reserve the right to supplement these responses, as necessary in Reply Comments, to address other parties' Comments.

[96] *See FERC 2017 Staff Report.*

V. CONCLUSION

WHEREFORE, American Manufacturers respectfully request that the Commission:

1. Exercise its discretion to reject the Proposed Rule; and

2. Grant such other relief as the Commission may deem warranted and consistent with these Comments.

Respectfully submitted,

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Counsel to the PJMICC Customer Coalition and
the Coalition of MISO Transmission Customers, and
on behalf of American Manufacturers

Dated: October 23, 2017

APPENDIX A

Supporting Materials

Item No.	DESCRIPTION	LINK
A-1	Grenier and R. Clark, *The Relationship Between DOE and FERC: Innovative Government or Inevitable Headache*, 1 Energy L.J. 325, 345 (1980), *available at* http://www.felj.org/sites/default/files/elj/Energy%20Journals/Vol1_No2_1980_The_Relationship_Between_DOE_and_F.pdf.	http://www.felj.org/sites/default/files/elj/Energy%20Journals/Vol1_No2_1980_The_Relationship_Between_DOE_and_F.pdf
A-2	*See* U.S. Department of Energy, *Staff Report to the Secretary on Electricity Markets and Reliability*, at 10, 11 (Aug. 2017), *available at* https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf.	https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf.
A-3	*See, e.g.*, Monitoring Analytics, LLC, Independent Market Monitor for PJM, *State of the Market Report for PJM: January through June* at 1-5 (Aug. 10, 2017), *available at* http://monitoringanalytics.com/reports/PJM_State_of_the_Market/2017/2017q2-som-pjm.pdf.	http://monitoringanalytics.com/reports/PJM_State_of_the_Market/2017/2017q2-som-pjm.pdf.
A-4	*See, e.g.,* PJM Interconnection, L.L.C., *PJM's Evolving Resource Mix and System Reliability* at 3, 5, 6, and 8 (Mar. 30, 2017), *available at* http://pjm.com/-/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx?la=en.	http://pjm.com/-/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx?la=en.
A-5	DOE/EIA, *The Changing Structure of the Electric Power Industry 2000: An Update* (Oct. 2000), *available at* http://webapp1.dlib.indiana.edu/virtual_disk_library/index.cgi/4265704/FID1578/pdf/electric/056200.pdf.	http://webapp1.dlib.indiana.edu/virtual_disk_library/index.cgi/4265704/FID1578/pdf/electric/056200.pdf
A-6	*See* JBS Energy, Inc., *Restructuring and Stranded Costs: Theory, Practice, and Unforeseen Implications*, at 19 (Oct. 2000) (prepared for	http://www.jbsenergy.com/downloads/ark_restr_strand_cost.pdf.

	the Attorney General of Arkansas), *available at* http://www.jbsenergy.com/downloads/ark_restr_strand_cost.pdf.	
A-7	The Economist, *Deep sigh of relief* (Mar. 16, 2013), available at https://www.economist.com/news/special-report/21573279-shale-gas-and-oil-bonanza-transforming-americas-energy-outlook-and-boosting-its (last visited Oct. 19, 2017).	https://www.economist.com/news/special-report/21573279-shale-gas-and-oil-bonanza-transforming-americas-energy-outlook-and-boosting-its.
A-8	IHS CERA, *Fueling the Future with Natural Gas: Bringing It Home* (Jan. 2014), *available at* http://marcelluscoalition.org/wp-content/uploads/2014/01/Fueling-the-Future-Executive-Summary-14Jan2014.pdf.	http://marcelluscoalition.org/wp-content/uploads/2014/01/Fueling-the-Future-Executive-Summary-14Jan2014.pdf.
A-9	University of Michigan, *Shale Gas: A Game-Changer For U.S. Manufacturing* (July 2014), *available at* http://energy.umich.edu/sites/default/files/PDF%20Shale%20Gas%20FINAL%20web%20version.pdf.	http://energy.umich.edu/sites/default/files/PDF%20Shale%20Gas%20FINAL%20web%20version.pdf.
A-10	Centre for Economic Performance, *On the Comparative Advantage of U.S. Manufacturing: Evidence from the Shale Gas Revolution* (Nov. 2016), *available at* http://cep.lse.ac.uk/pubs/download/dp1454.pdf.	http://cep.lse.ac.uk/pubs/download/dp1454.pdf.
A-11	North American Electric Reliability Corporation, *Severe Impact Resilience: Considerations and Recommendations* (May 9, 2012), *available at* http://www.nerc.com/docs/oc/sirtf/SIRTF_Final_May_9_2012-Board_Accepted.pdf.	http://www.nerc.com/docs/oc/sirtf/SIRTF_Final_May_9_2012-Board_Accepted.pdf.
A-12	North American Electric Reliability Corporation, *State of Reliability 2017* (June 2017), *available at* http://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/SOR_2017_MASTER_20170613.pdf.	http://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/SOR_2017_MASTER_20170613.pdf.
A-13	PJM Interconnection, L.L.C., *Resilience in System Planning* (Oct. 12, 2017), *available at* http://www.pjm.com/-/media/committees-groups/committees/pc/20171012/20171012-item-09-grid-resilience-in-system-planning.ashx.	http://www.pjm.com/-/media/committees-groups/committees/pc/20171012/20171012-item-09-grid-resilience-in-system-planning.ashx.
A-14	North American Electric Reliability Corporation, *Informational Filing on the Definition of "Adequate Level of Reliability"*, Docket No.	https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13256848.

	RR06-1 (May 10, 2013), *available at* https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13256848.	
A-15	Analysis Group, *Electricity Markets, Reliability and the Evolving U.S. Power System*, at 41 (June 2017), *available at* https://sites.hks.harvard.edu/hepg/Papers/2017/ag_markets_reliability_final_june_2017.pdf.	https://sites.hks.harvard.edu/hepg/Papers/2017/ag_markets_reliability_final_june_2017.pdf.
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Hard copies of the supporting documents, as referenced in the footnotes herein, are included in Appendix A to ensure completeness of the record.

Hard copies to follow.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served, via first-class mail, electronic transmission, or hand-delivery, the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 23rd day of October, 2017.

/s/ Robert A. Weishaar, Jr.

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