

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**Grid Resilience in Regional Transmission Organizations and Independent System Operators** ) **Docket No. AD18-7-000**  
)

**COMMENTS OF THE NATURAL GAS SUPPLY ASSOCIATION**

Pursuant to the Commission’s “Order Extending Time for Comments,”<sup>1</sup> the Natural Gas Supply Association (“NGSA”) hereby submits the following comments on the seven regional grid resilience submissions in the captioned proceeding.<sup>2</sup>

**I. Executive Summary**

NGSA wholeheartedly supports the Commission’s rejection of the NOPR proposed by the U.S. Department of Energy (“DOE”), which reinforces the Commission’s commitment to the successful operation of competitive markets. By rejecting the NOPR, the Commission adhered to its statutory obligation to ensure its actions are based on a sound factual record and that they satisfy the legal standards required under the Federal Power Act (“FPA”). Out-of-market measures, such as those advanced in the DOE-proposed NOPR, are not only unwarranted but would have had an adverse impact on price signals in competitive power markets; thereby creating reliability and resilience concerns instead of resolving them. In the January 8 Order, the Commission correctly acknowledged that an examination of resilience should encompass more than simply the ability of a generator to have on-site fuel.

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<sup>1</sup> *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, 162 FERC ¶ 61,256 (Mar. 20, 2018). NGSA comments on submissions filed March 9, 2018 by California Independent System Operator Corporation (“CAISO”), Electric Reliability Council of Texas, Inc. and the Public Utility Commission of Texas (“ERCOT”), ISO New England Inc. (“ISO-NE”), Midcontinent Independent System Operator, Inc. (“MISO”), New York Independent System Operator, Inc. (“NYISO”), PJM Interconnection, L.L.C. (“PJM”), and Southwest Power Pool, Inc. (“SPP”).

<sup>2</sup> *Grid Reliability and Resilience Pricing*, 162 FERC ¶ 61,012 (2018) (Jan. 8, 2018) (“January 8 Order”).

Also, NGSAs are encouraged that the Commission has turned to the regional operators and their stakeholders for comment on their regions' reliability and resilience and to ascertain what steps, if any, should be taken to address concerns in this area. The RTO/ISO submissions filed in this proceeding clearly demonstrate that pro-market solutions have been and will continue to be the best means to ensure a reliable and resilient grid. Rather than expressing a need to subsidize specific types of resources, there was widespread confidence expressed by the RTOs/ISOs that the competitive market is capable of ensuring future reliability and resilience and that there are no emergency situations that require immediate regulatory intervention.

Based on the regional assessments filed in this proceeding, it is clear that it is time to end discussions specifically directed at financially supporting uneconomic coal and nuclear plants in the name of resilience. Moving away from those discussions will allow FERC, RTOs/ISOs and their stakeholders to focus on what matters most – the ability to reliably serve power customers. Power customers are best served by improving competitive market signals that provide for reliability and resilience in the most economic and fuel-neutral manner.

Several RTOs requested natural gas industry actions to support grid resilience given their increased reliance on natural gas but, as New England's fuel risk situation exemplifies, adequate infrastructure to support the region's power demand is the most vital natural gas industry component associated with reliability and resilience. Therefore, refocusing the resilience conversation will also allow time for power market participants to examine ways in which they can become stronger advocates for infrastructure investments where such investments are needed to support system reliability and resilience.

## II. Interest of NGSA

Founded in 1965, NGSA represents integrated and independent energy companies that produce and market domestic natural gas and is the only national trade association that solely focuses on producer-marketer issues related to the downstream natural gas industry. NGSA members trade, transact and invest in the U.S. natural gas market in a range of different manners and has consistently advocated for well-functioning power and natural gas markets, just and reasonable transportation rates, non-preferential terms and conditions of transportation services and the removal of barriers to developing needed natural gas infrastructure. NGSA has a long-established commitment to ensuring a public policy environment that fosters a growing, competitive market for natural gas. NGSA also supports a level playing field for all market participants that is free from inappropriate regulatory barriers to supply.

## III. General Comments

1. *The definition of resilience should encourage market-based solutions that maintain system resilience rather than imposing command-and-control approaches.*

NGSA agrees that we must accurately define resilience as well as specify the appropriate way by which to measure resilience. The need for an appropriate definition of resilience was recently highlighted by the Department of Energy's ("DOE") National Energy Technology Laboratory ("NETL") report, which made claims about the relative "resilience" of specific resources in PJM during the Bomb Cyclone without actually examining system or generator performance during that period.<sup>3</sup> NGSA agrees with ERCOT that "the concept of grid resilience

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<sup>3</sup> *Reliability, Resilience and the Oncoming Wave of Retiring Baseload Units, Volume I: The Critical Role of Thermal Units During Extreme Weather Events*, National Energy Technology Laboratory (Mar. 13, 2018), [https://www.netl.doe.gov/energyanalyses/temp/ReliabilityandtheOncomingWaveofRetiringBaseloadUnitsVolumeITheCriticalRoleofThermalUnits\\_031318.pdf](https://www.netl.doe.gov/energyanalyses/temp/ReliabilityandtheOncomingWaveofRetiringBaseloadUnitsVolumeITheCriticalRoleofThermalUnits_031318.pdf). A more detailed rebuttal of NETL's report is detailed later on in these comments.

is... a component of bulk-power system reliability under the Federal Power Act” and is not a distinct concept as some have suggested. NGSAs also agrees with CAISO that resilience may already be accounted for in North American Electric Reliability Corporation (“NERC”) contingency planning and reliability standards.<sup>4</sup>

As discussed in more detail below, NGSAs proposes the following definition of resilience:

**NGSA Proposed Definition of Resilience:**

The system’s ability to withstand and/or reduce the magnitude and/or duration of disruptive events so that customers continue to be reliably served.

[Efforts to ensure resilience entail planning and preparation so that the system can absorb, adapt to, and/or timely recover from such an event using market-based approaches to the extent possible.]

**Redline of FERC’s Proposed Definition:**

The **system’s** ability to withstand and/or reduce the magnitude and/or duration of disruptive events **so that customers continue to be reliably served.**

**[Efforts to ensure resilience, which entail planning and preparation so that the system can include the capability to anticipate, absorb, adapt to, and/or rapidly timely recover from such an event using market-based approaches to the extent possible.]**

As PJM stated in its submission, “[u]ltimately, the goal is to ensure that the BES can continue, into the future, to meet the needs of customers for the reliable and secure delivery of electricity at a price which remains just and reasonable.”<sup>5</sup> NGSAs agrees and therefore we propose that the definition of resilience include what we believe is the most critical measure of resilience – the ability of the system to continue to reliably serve customers.<sup>6</sup> Simply put, if all power market customers continue to be served, the system is resilient.

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<sup>4</sup> See CAISO comments at 9.

<sup>5</sup> PJM comments at 3.

<sup>6</sup> While individual unit performance is important, unit performance is **not** a measure of the system’s ability to withstand a disruptive event, since regional planning efforts already account for expected unit disruptions such as when determining reserve margin reference targets. Therefore, it is counterintuitive to base resilience on individual unit outages when the system itself can continue to perform as expected.

The Commission’s proposed definition of resilience as well as the definitions proposed by PJM went far beyond defining resilience. FERC’s definition included specific system capabilities that it expected the system to possess for resilience while PJM’s definition added specific actions that PJM thought that RTOs/ISOs should take for emergency planning and preparation as well as expected RTO/ISO capabilities – as opposed to the system’s capabilities. While resilience planning and preparation efforts are some of the most critical functions performed by regional operators, an overly prescriptive definition of resilience (delineating the types of efforts or capabilities that the system of RTO should take or possess) may push RTOs to focus more on command and control actions to ensure resilience rather than relying on market solutions.

In their submissions, a number of RTOs/ISOs expressed a preference for resolving resilience issues primarily through market mechanisms and we would not want the definition of resilience to inadvertently move them off that path.<sup>7</sup> CAISO’s submission recognizes that there are significant differences among regions in the way they assess and achieve resilience and for this reason, CAISO believes that each region must have the flexibility to determine what capabilities are needed to maintain reliability and resilience.<sup>8</sup> Given regional distinctions, it would be inappropriate to specify capabilities that will be required by all RTOs. For these reasons, NGSAs encourages the Commission to not include efforts or capabilities in the definition of resilience but instead, to separately discuss expected efforts with an emphasis on market

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<sup>7</sup> See, e.g., ERCOT comments at 4-5 (Consistent with the Commission’s approved design of other American wholesale energy markets, the PUCT has designed the ERCOT market to ensure resource adequacy—including the reliable service of load in a variety of future operating scenarios—by compensating generators for remaining available during conditions of energy scarcity); SPP comments at 16 (“In the event that a given security constraint cannot be met for the expected online resource mix, price formation (including scarcity pricing) for any related market products indicates the need for additional supply and can help drive investment in the BPS in the areas where it is most beneficial.”).

<sup>8</sup> CAISO comments at 7.

solutions. However, if the Commission decides it must include a more expansive definition, it should refer only to **system** capabilities as proposed by FERC -- not RTO/ISO capabilities or individual unit performance.

2. *Customers should be a top priority when exploring actions to bolster resilience.*

A general theme that emerges from the RTO/ISO submissions is the acknowledgement that consumer cost is a significant factor when considering preventative measures to “harden” systems for resilience. RTOs/ISOs recognized that industry resources are limited, and end-use customers ultimately bear the brunt of increased expenditures. The RTOs/ISOs consistently made the point that it is uneconomic and inefficient to protect the grid from every conceivable risk and it is nearly impossible or impractical to guard against every possible combination and magnitude of future events or conditions.<sup>9</sup> We agree with the RTOs/ISOs that the Commission must carefully weigh the costs and benefits of any measures considered to promote resilience so that consumers only pay for the most efficient resilience gains, **including any proposed regulatory actions directed at the natural gas industry**. Certainly, if unwarranted coal and nuclear subsidies are imposed, consumers will bear the burden of paying for those subsidies in addition to the costs associated with market disruptions while receiving no measurable benefit.<sup>10</sup>

To the extent that non-market actions must be considered in limited circumstances, RTOs/ISOs should prioritize and allocate resources to those actions that will provide the most cost-effective results with the greatest system benefits. Since more than 99% of electric outages

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<sup>9</sup> See, e.g., PJM comments at 10, 41 (“RTOs should not be required to plan and design the BES to be invulnerable to a broad spectrum of hazards and corresponding impacts - regardless of the cost to do so or the incremental value that may be achieved in making such improvements for a contingency that will rarely, if ever, occur.”); CAISO comments at 6.

<sup>10</sup> It is widely recognized that competition in power markets has saved consumers billions of dollars while providing choice, innovation and reliability. These benefits could be significantly diminished through market distortions created by coal and nuclear subsidies.

occur due to transmission and distribution issues, the primary focus in each region should be on addressing resilience measures related to transmission.<sup>11</sup>

3. *The RTO/ISO submissions demonstrate that pro-market solutions have been and will continue to be the best means to ensure reliable and resilient regional power systems.*

The RTO/ISO submissions revealed the enormous effort each RTO/ISO is devoting to reliability and resilience, which demonstrates that the RTOs/ISOs have made reliability and resilience top priorities and they are being proactive in making resilience an integral part of their planning and business practices. Additionally, RTOs/ISOs expressed confidence that their systems are reliable and resilient, except for ISO-NE, which has ongoing reliability issues associated with insufficient pipeline capacity to support its generation needs on a peak day.<sup>12</sup>

Examples of these efforts include:

- CAISO differentiates itself from the other regions stating that they do not experience the same resilience issues as other regions of the country because they are not faced with extreme cold conditions and they are not reliant on coal and nuclear resources.<sup>13</sup>
- MISO strongly states that its region is resilient and credits excess resources as well as better preparation after the lessons it learned during the Polar Vortex.<sup>14</sup>
- NYISO notes that the EIPC study found that risks in New York are mitigated by the strong presence of dual fuel, the diversity of pipelines serving their fleet of resources and that 84% of gas-fired generation capacity has dual fuel capability.<sup>15</sup>
- PJM did not focus a lot on its current state of resilience in its submission in this proceeding, but they have addressed this in several other recent forums. In response to the DOE NETL report, PJM found that the system's performance

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<sup>11</sup> See SPP comments at 12 (“Because of distinctions in footprint size, severe weather is more likely to impact the transmission and distribution systems than generation.”). See also Houser, Larsen & Marsters, *The Real Electricity Reliability Crisis* (Oct. 3, 2017), [http://rhg.com/notes/the-real-electricity-reliability-crisis?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=newsletter\\_axiosgenerate&stream=politics](http://rhg.com/notes/the-real-electricity-reliability-crisis?utm_source=newsletter&utm_medium=email&utm_campaign=newsletter_axiosgenerate&stream=politics).

<sup>12</sup> The one notable exception to the expressed confidence in regional resilience is ISO-NE, which does not have sufficient pipeline capacity in place to meet power market demand on a peak day. However, ISO-NE is actively and aggressively working with its stakeholders on solutions to move away from relying on out-of-market actions. ISO-NE comments at 6, 24.

<sup>13</sup> CAISO has no coal units and it has only one nuclear unit that will retire in 2024. CAISO comments at 1.

<sup>14</sup> MISO comments at 2, 38, 42.

<sup>15</sup> NYISO comments at 25, 31.

during the 2017/2018 cold snap is “evidence that the grid in the PJM service area remains strong, diverse and reliable.”<sup>16</sup> Similarly, when answering First Energy’s request for DOE to use its emergency authority under 202(c) of the Federal Power Act, PJM stated emphatically that its system presently is reliable by all measures.<sup>17</sup> Most recently, in its Generation Deactivation Notification Update regarding First Energy’s announced retirements, PJM concluded that the “[u]nits can retire as scheduled” and that there will be a sufficient transmission margin after First Energy’s retirements to operate the system with two single outage.<sup>18</sup>

- SPP states that due to its fuel-diverse resource mix and relatively high reserve margins, its region has not experienced “real time” reserve margin levels that would trigger a need for SPP to study a lack of capacity associated with any fuel type. Also, SPP believes that their planning reserve margin requirements ensure there is enough capacity per LRE and helps support resilience by ensuring there is a margin of installed capacity above and beyond forecasted load plus obligations.<sup>19</sup>

Additionally, as reflected in the examples below, regional operators are confident that the competitive market has and will continue to be the primary way they manage resilience without a need to subsidize uneconomic resources.

- ERCOT points to its scarcity pricing as one of the most important factors in their region that has alleviated the need for them to impose resilience-based regulatory controls. “Market design is inextricably linked to long-term system reliability.”<sup>20</sup>
- MISO states that its markets structure, which co-optimizes energy and ancillary services, will be critical to addressing changes in the resource portfolios brought by new technologies and state policies.<sup>21</sup>
- NYISO credits higher prices during shortage conditions, locational capacity requirements and price signals for bolstering resilience.<sup>22</sup>

<sup>16</sup> *Perspective and Response of PJM Interconnection to National Energy Technology Laboratories Report Issued March 13, 2018*, at 9, <http://www.pjm.com/-/media/library/reports-notice/weather-related/20180413-pjm-response-to-netl-report.ashx?la=en>.

<sup>17</sup> PJM Transmission Expansion Advisory Committee, *Generation Deactivation Notification Update*, at 3 (May 3, 2018), <https://www.pjm.com/-/media/committees-groups/committees/teac/20180503/20180503-teac-generation-deactivation-notification.ashx>.

<sup>18</sup> See “PJM’s Evolving Resource Mix and System Reliability,” at 5 (Mar. 30, 2017), <http://www.pjm.com/-/media/library/reports-notice/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.Ashx>.

<sup>19</sup> SPP comments at 9, 15.

<sup>20</sup> ERCOT comments at 4-5.

<sup>21</sup> MISO comments at 14.

<sup>22</sup> NYISO comments at 7-9. While NYISO states that it relies on market outcomes, we note that market outcomes in New York are skewed from the substantial nuclear plant subsidies provided through New York’s zero emissions credits program.

- PJM explains that it “does not focus on particular fuel types but instead identifies attributes that are needed from all resources and uses those attributes to create performance requirements,”<sup>23</sup> and it has efforts underway, such as price formation and capacity market price mitigation, that it believes will bolster the region’s resilience.<sup>24</sup> PJM notes that RPM, through its “pay-for-performance” model, requires resources to deliver energy on demand during system emergencies or otherwise pay a significant penalty for non-performance.<sup>25</sup>
- SPP explains that it has not experienced reserve margin levels low enough to trigger special studies related insufficient capacity in connection with any specific fuel type<sup>26</sup> and their price formation (including scarcity pricing) helps to drive investment in the BPS in the areas where it is most beneficial.”<sup>27</sup>

The RTO/ISO assessments reiterate the fact that markets work and there is no basis to hastily act on unsupported claims of impending emergencies. Nor is there a need for out-of-market actions that direct market outcomes or favor one energy source over another in the name of resilience or by raising arguments about cybersecurity vulnerabilities with no sound justification.<sup>28</sup> In fact, the retirement of old inefficient, high-cost generation, including older inefficient gas-fired plants, is the outcome of successful operation of the market -- making room for newer, more responsive, reliable, cleaner and efficient technologies. This is in stark contrast to the significant long-term impacts that would occur if energy prices are suppressed through subsidies or other non-market interventions. NGSAs urge the Commission to stay committed to a deliberate and steady process that remains focused on proper framing and

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<sup>23</sup> PJM comments at 47.

<sup>24</sup> PJM, together with its stakeholders, is already actively evaluating such potential reforms that advance operational characteristics that support reliability and resilience, including (i) improvements to its Operating Reserve market rules and to shortage pricing, (ii) improvements to its Black Start requirements, (iii) improvements to energy price formation that properly values resources based upon their reliability and resilience attributes, and (iv) integration of distributed energy resources (“DERs”), storage, and other emerging technologies. PJM comments at 6.

<sup>25</sup> PJM comments at 72.

<sup>26</sup> SPP comments at 9.

<sup>27</sup> *Id.* at 16.

<sup>28</sup> FERC, NERC and the RTOs are the key authorities that should address any cybersecurity threats so that they can be addressed in a fuel-neutral manner without a fuel or resource preference given that cyber threats can impact all resources.

evaluation of resilience solutions that fit within a competitive market construct and avoids undue influence by emotionally driven positions that seek economic relief in absence of adequate justification.

4. *Instead of introducing new market imperfections, efforts should be made to improve the functioning of competitive power markets to maintain resilience.*

Some proponents of buoying up uneconomic units argue that competitive markets for power are already distorted by out-of-market actions and existing subsidies and introducing yet another market distortion will not matter. However, nothing could be further from the truth. We cannot allow the perfect to become the enemy of the good and allow these types of incremental actions to effectively destroy competitive markets by controlling market outcomes. As eight former FERC commissioners acknowledged in their DOE NOPR comments, “there is always more to do to make wholesale markets more open, more transparent and more efficient; but moving backward is not the way to go.”<sup>29</sup> The former commissioners described the impact of coal and nuclear subsidies on the market, saying that “[t]he subsidized resources would inevitably drive out unsubsidized resources, and the subsidies would inevitably raise prices to customers. Investor confidence would evaporate and markets would tend to collapse. This loss of faith in markets would thereby undermine reliability.”<sup>30</sup>

Rather than giving up, we should look for ways to enhance the functioning of competitive markets in order to encourage new investment and enhance performance; which are critical to system reliability and resilience. The natural gas shale revolution is a prime example of the power of price signals when the market is allowed to operate.

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<sup>29</sup> *Grid Reliability and Resilience Pricing*, Docket No. RM18-1-000 “Comments of the Bipartisan Former FERC Commissioners,” at 7 (Oct. 19, 2017).

<sup>30</sup> *Id.* at 6.

5. *RTOs/ISOs should be strong advocates for infrastructure that is needed to support system reliability and resilience.*

As exemplified by the current situation in New England, sufficient pipeline capacity to serve power demand is a fundamental component of regional reliability and resilience. For that reason, NGSA encourages RTOs/ISOs and their stakeholders to be strong advocates for pipeline infrastructure and ensuring that there are no unnecessary hurdles in place that may cause delays in adding more pipeline capacity where it is required to support system reliability and resilience. It is critical for FERC and state regulators to have a better understanding of the need for pipeline projects and their role in supporting electric reliability and resilience. We understand that some regional operators have been hesitant to publicly advocate for additional pipeline capacity because of their fuel-neutral commitment. However, when obstacles are in place that prevent generators from having the infrastructure they require to perform, advocating for fuel availability is not showing favoritism, it is actively taking steps to support system resiliency. Similarly, if more railroads are needed to reliably deliver coal to existing plants, we would expect regional operators to publicly support that infrastructure as well. Two important pipeline infrastructure issues are discussed below.

- a. New pipeline capacity should remain a viable option as stakeholders explore solutions to address ISO-NE's fuel security issues.*

ISO-NE points to its recent fuel security study to answer many of the Commission's questions about resilience in New England.<sup>31</sup> NGSA appreciates ISO-NE's efforts to examine various scenarios to project future fuel risk and to engage with its stakeholders to find the best means to address these concerns without resorting to out-of-market solutions. However, NGSA is concerned that, because the study assumes that no additional gas infrastructure will be built

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<sup>31</sup> See ISO-NE comments, Attachment A.

other than what is already underway, ISO-NE and its stakeholders may not seriously consider additional pipeline capacity a viable option as they consider various ways to address fuel security risks. Although efforts to date have not been productive, pipeline capacity remains one of, if not the most, cost-effective solutions for addressing New England's fuel risk dilemma and should remain a valid option. It is ironic that regional resistance to a natural gas pipeline has led to increased use of fuel oil and coal,<sup>32</sup> which only serves to increase GHG emissions in New England.

*b. Natural gas will continue to play a critical role in helping states meet their clean energy objectives.*

CAISO recognized that gas-fired resources will continue to provide vital reliability services for the foreseeable future despite their increasing reliance on non-carbon emitting resources.<sup>33</sup> However, in its submission, NYISO does not mention the critical role that natural gas will continue to play in New York as it begins to integrate increasing levels of intermittent resources to reach their goal of 50% renewables. Instead, NYISO points to the key role they expect batteries to play in that transition.<sup>34</sup> Battery technology has a lot of promise for the future. Yet, until that technology advances to a level in which it is economic for commercial applications,<sup>35</sup> NYISO cannot ignore the essential role natural gas will continue to play in ensuring electric reliability and resilience in New York as it integrates increasing levels of renewable resources. For this reason, we urge NYISO to acknowledge and to urge state officials

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<sup>32</sup> See p. 11 of ISO-NE Cold Weather Operations presentation by Vamsi Chadalavada, January 12, 2018.

<sup>33</sup> CAISO comments at 5.

<sup>34</sup> NYISO comments at 16 & n.20.

<sup>35</sup> See International Renewable Energy Agency, *Electricity Storage and Renewables: Costs and Markets to 2030*, at 21 (“There is significant confusion regarding when electricity storage is essential in the energy transition, as opposed to when it is an economic opportunity. Pumped hydro storage can be economic at present when providing flexibility to the electricity system. Battery costs — although falling rapidly — remain high at present with their economic applications mainly found in off-grid markets, transport and, increasingly, behind-the-meter uses.”), [http://www.irena.org/media/Files/IRENA/Agency/Publication/2017/Oct/IRENA\\_Electricity\\_Storage\\_Costs\\_2017.pdf](http://www.irena.org/media/Files/IRENA/Agency/Publication/2017/Oct/IRENA_Electricity_Storage_Costs_2017.pdf).

to also acknowledge the role of natural gas and to reconsider existing policies that are not gas-friendly and could have an impact on reliability and resilience – not only in New York but also in New England.

For instance, denials and unnecessary delays in approving pipeline 401 water certifications make it increasingly difficult, if not impossible, to build additional pipeline capacity to meet demand, not only in New York, but in other states in the Northeast and New England where electric reliability is at risk due to a lack of sufficient pipeline infrastructure. If reliability and resilience are truly important, we will need to find a solution to this current roadblock. Certainly, a single state should not be able to effectively deny the reliability needs of other states when it comes to approving of federal infrastructure projects. At a recent hearing, DOE Secretary Perry questioned whether states have the right to block a pipeline if it has national security or economic implications.<sup>36</sup>

6. *The Commission should review with great care and caution any RTO proposal for new authority to suspend market operations.*

The Commission has, over the last several decades, concluded that well-structured competitive markets for electricity assure that customers receive just and reasonable rates and thereby fulfill the requirements of the Federal Power Act.<sup>37</sup> Importantly, the energy sector has relied on these competitive market constructs as the foundation for investing many billions of dollars in energy infrastructure. Accordingly, the Commission should review with great care and caution any proposal to grant the regional market operators new authority to suspend competitive

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<sup>36</sup> See House Committee on Science, Space, and Technology hearing “*An Overview of the Budget Proposal for the Department of Energy for FY19*,” May 9, 2018, <https://science.house.gov/legislation/hearings/full-committee-hearing-overview-budget-proposal-department-energy-fiscal-year-1>.

<sup>37</sup> See *FERC v. Elec. Power Supply Assoc.*, 136 S. Ct. 760, 768 (2016) (“FERC often forgoes the cost-based ratesetting traditionally used to prevent monopolistic pricing. The Commission instead undertakes to ensure ‘just and reasonable’ wholesale rates by enhancing competition— attempting, as we recently explained, ‘to break down regulatory and economic barriers that hinder a free market in wholesale electricity.’”) (citing *Morgan Stanley Capital Group Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cty.*, 554 U.S. 527, 536 (2008)).

market operations. PJM's proposal for new authority to suspend market operations has not been supported by a thorough demonstration of need, and thus should not be adopted.

While the RTO and ISO comments expressed a preference for market-based mechanisms to ensure resilience,<sup>38</sup> several of the comments suggested that RTOs and ISOs should have expanded authorities to intervene in the competitive markets. For instance, PJM requests that FERC allow for an expanded exercise of “non-market actions,” with explicit authority “to suspend market operations, implement cost-based compensation, and direct operation of generation.”<sup>39</sup> ISO-New England, while noting that its own stakeholder process remains ongoing, indicated that it might need to take out-of-market actions that might include “prevent[ing] key energy resources with on-site fuel from retiring, [or] refrain[ing] from dispatching certain resources economically during adverse weather conditions to preserve critical fuel stocks.”<sup>40</sup>

The Commission should act with great caution before expanding the authority of RTOs to unilaterally act to suspend market operations and revert to cost-based rates in the name of resilience. The Commission has relied on markets to deliver consumer benefits and maintain reliability and has succeeded on both fronts.<sup>41</sup> At present, tariff authorities for RTOs to take out-of-market actions, such as authority to designate reliability-must-run units and contract with such

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<sup>38</sup> See, e.g., ERCOT comments at 5; NYISO comments at 5.

<sup>39</sup> PJM comments at 39.

<sup>40</sup> ISO-NE comments at 12.

<sup>41</sup> See, e.g., U.S. Department of Energy, *Staff Report on Electricity Markets and Reliability*, at 10 (2017) (“While markets have evolved since their introduction, they are currently functioning as designed—to ensure reliability and minimize the short-term costs of wholesale electricity—despite pressures from flat demand growth, Federal and state policy interventions, and the massive economic shift in the relative economics of natural gas compared to other fuels.”),

[https://www.energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability\\_0.pdf](https://www.energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf); *Grid Reliability and Resilience Pricing*, Docket No. RM18-1-000, “Comments of the ISO-RTO Council” (Oct. 23, 2017), [https://www.iso-ne.com/static-assets/documents/2017/10/irc\\_comments\\_on\\_doe\\_nopr.pdf](https://www.iso-ne.com/static-assets/documents/2017/10/irc_comments_on_doe_nopr.pdf); ISO-RTO Council 2009 State of the Markets Report, <http://www.isorto.org/Documents/Report/2009IRCStateOfTheMarketsReport.pdf>.

units on a cost-of-service basis, are narrowly tailored to achieve specific grid reliability needs. So, for instance, the use of reliability must run contracts are limited to a specific generating unit, to address location-specific grid reliability concerns, only for the specific time period needed before transmission upgrades can be made to address the identified overload or other reliability problem. This narrow, careful regulatory approach to reliability must run units is appropriate, relying on competitive electricity markets except where there is a clear and specific need for intervention guided by transmission reliability principles. The Commission should adopt the same narrow, careful approach in considering whether it is appropriate to grant RTOs any new authorities to suspend markets, as suggested by PJM.

We note that DOE has the statutory authority under section 202(c) of the Federal Power Act to compel “temporary connections of facilities, and such generation, delivery, interchange, or transmission of electricity” in the event of war or “whenever the [DOE] determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes.”<sup>42</sup> The availability of this long-standing authority to the Federal government provides an important backstop for addressing true emergencies, which, for that reason, are appropriately rarely used.<sup>43</sup> But the existence of this

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<sup>42</sup> 16 U.S.C. § 824a(c).

<sup>43</sup> NGSAs opposed FirstEnergy Solution’s recent request for DOE to act under Section 202(c) of the Federal Power Act, explaining that (1) the application fails to demonstrate that the retirement of a class of generators in PJM would result in an emergency under Section 202(c), and (2) that the establishment of rates for any power purchases ordered under a Section 202(c) order is properly a Commission function, not a DOE function. See [http://www.ngsa.org/download/filings\\_testimony/2018\\_ferc/NGSA-Response-to-DOE-Request-Under-202C-of-FPA.pdf](http://www.ngsa.org/download/filings_testimony/2018_ferc/NGSA-Response-to-DOE-Request-Under-202C-of-FPA.pdf).

authority provides further reason for the Commission to review skeptically any claims that there is a need to grant RTOs and ISOs broad new authority to suspend markets in the name of resilience.<sup>44</sup>

7. *Despite claims made in a recent report by NETL, all resources contributed to resilience during the 2018 Bomb Cyclone.*

The cold snap that occurred in early January of 2018 was not raised as a central issue in the RTO submissions in this proceeding although some have issued separate reports about their system's performance during that timeframe. Since the date of the RTO submissions, the DOE's National Energy Technology Laboratory released a study claiming that coal was the most resilient resource in PJM during the January Bomb Cyclone.<sup>45</sup> Given that NETL's report has been referenced by multiple sources as support for providing unjustified subsidies to uneconomic coal and nuclear plants, NGSA feels compelled to rebut that study's proposed metrics as well as its inaccurate conclusions in this proceeding.

To support the conclusion that "coal saved the day," NETL ignores system and unit performance and, instead, makes an assumption that incremental use of a particular resource relative to the incremental use of other resources somehow is a reflection of which fuel type was the most resilient during the Bomb Cyclone. However, incremental use of each resource is only an indication of what was economically dispatched in the competitive market and not whether the system continued to serve customers or performed as expected.

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<sup>44</sup> Any use of 202(c) authority by DOE can be aligned with RTO expertise on the particular needs for the grid. In a recent 202(c) order, DOE instructed two Dominion Energy coal plants to run *upon PJM's direction* for several months period to meet grid needs –allowing the RTO to deploy the generators based on demonstrated needs for a clearly-delineated period. [https://www.energy.gov/sites/prod/files/2017/08/f35/Order%20Number%20202-17-2\\_0\\_0.pdf](https://www.energy.gov/sites/prod/files/2017/08/f35/Order%20Number%20202-17-2_0_0.pdf).

<sup>45</sup> *Reliability, Resilience and the Oncoming Wave of Retiring Baseload Units, Volume I: The Critical Role of Thermal Units During Extreme Weather Events*, NETL, [https://www.netl.doe.gov/energyanalyses/temp/ReliabilityandtheOncomingWaveofRetiringBaseloadUnitsVolumeITheCriticalRoleofThermalUnits\\_031318.pdf](https://www.netl.doe.gov/energyanalyses/temp/ReliabilityandtheOncomingWaveofRetiringBaseloadUnitsVolumeITheCriticalRoleofThermalUnits_031318.pdf).

PJM strongly rebutted NETL’s approach and findings as well in their response to the study stating:

[T]he fact that additional coal resources were dispatched due to economics is not a basis to conclude that natural gas resources were not available to meet PJM system demands or that without the coal resources during this period the PJM grid would have faced “shortfalls leading to interconnect-wide blackouts.”

In fact, during the cold snap, PJM reserves were over 23 percent of peak load demand, and there were few units that were unable to obtain natural gas transportation, even for most units that relied only on interruptible service.<sup>46</sup>

NETL attributes the increase in coal usage to potential issues related to natural gas fuel supply. Generation outages due to fuel supply issues were not prominent.<sup>47</sup>

Additionally, there have been multiple industry reviews and rebuttals of NETL’s study that unanimously conclude that NETL missed the mark on its attempt to measure resilience.<sup>48</sup> Based on the relative capacity-based fuel mix in PJM, it is evident that on a peak day, PJM will need to rely on more than one resource to meet demand.<sup>49</sup> Since natural gas is the most affordable option on most days of the year, natural gas is dispatched more often and more fully utilized than coal during the typical timeframe that NETL used to for its comparison of incremental use. Therefore, at peak, coal plants that were sitting idle would certainly show a greater increase in their use than natural gas units that were already running during the non-peak period.

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<sup>46</sup> *Perspective and Response of PJM Interconnection to National Energy Technology Laboratories Report Issued March 13, 2018*, at 2, <http://www.pjm.com/-/media/library/reports-notice/weather-related/20180413-pjm-response-to-netl-report.ashx?la=en>

<sup>47</sup> *Id.* at 3.

<sup>48</sup> See (1) <http://sustainableferc.org/fossil-lab-misses-mark-in-cold-weather-resilience-report/>;

(2) <https://blog.ucsusa.org/jeremy-richardson/departments-of-energy-releases-bogus-coal-study>; and

(3) <https://www.utilitydive.com/news/understanding-grid-resilience-implications-for-market-design-beyond-the-ne/522052/>

<sup>49</sup> According to PJM, its installed capacity in 2016 consisted of 33 percent coal, 33 percent natural gas, 18 percent nuclear, and 6 percent renewables (including hydro). See “PJM’s Evolving Resource Mix and System Reliability,” at 9, <http://www.pjm.com/-/media/library/reports-notice/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.Ashx>.

While we commend DOE and NETL for their efforts to study system resilience during peak winter events, studying metrics clearly unrelated to system performance of the system only serves to introduce more inaccuracies into this resilience dialogue. If the market properly values attributes in a competitive manner, no specific fuel source is needed to “save the day;” high performance will simply be an expected outcome regardless of what resources are called upon.

The submissions made by the regional operators strongly refute unsupported claims that government subsidies are essential to keep older uneconomic units in operation. In its submission, PJM says that it has seen significant new entry of a diverse mix of fuel types since the inception of its capacity market and while there have been coal retirements, the average age of the coal units in PJM was over 50 years. “In short, the markets have helped to incent new efficient generation of all fuel types and helped to retain existing generation needed to serve electric needs of customers in the PJM footprint. Overall, there was a significant reduction of forced/unplanned outages when comparing the winter of 2014 to the recent cold snap.”<sup>50</sup>

As pointed out in a number of the RTO/ISO submissions, there are no energy sources that do not have potential vulnerabilities -- from drought impacts on hydro, climate impacts on wind turbines, road delivery delays for oil, and frozen rivers impacting oil barges.<sup>51</sup> Coal generators are also vulnerable to disruptions to fuel transportation and delivery.<sup>52</sup> PJM found in their cold snap report that coal-fired units “frequently reported transportation issues associated with barge resupply delays due to frozen rivers and increased barge traffic.” According to PJM, coal supply issues were also reported as “coal quality” issues mostly associated with freezing issues that

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<sup>50</sup> PJM Cold Snap Report at 2.

<sup>51</sup> *See, e.g.*, MISO comments at 32-33; ISO-NE comments at 38.

<sup>52</sup> *See, e.g.*, SPP comments at 4.

occur in the conveyance of coal from the pile to the boiler.<sup>53</sup> In that same report, PJM found that there were no reported firm capacity restrictions on natural gas pipelines during this period.<sup>54</sup>

Furthermore, in PJM's Cold Snap Report, Capacity Performance (CP units) using natural gas showed improved results, which PJM saw as an indication that gas CP units were better prepared through increased firmness of transportation capacity and supply, along with a greater diversity of natural gas supply resources and delivery options. However, PJM found that the operational data on outage performance for both coal and oil resources showed no improvement for CP resources, and that further analysis was needed to ascertain if CP resource investments have been focused on firming up supply vs. plant equipment improvements.<sup>55</sup>

8. *PJM's new fuel security initiative appears to reflect an unsupported bias against natural gas, which can adversely affect market outcomes and performance.*

On April 30, 2018, PJM announced that it was embarking on an effort to assess fuel security vulnerabilities and to model vulnerabilities to determine capacity market requirements in various zones of its system to clear what they refer to as "fuel secure resources" in those locations. PJM states that the process of examining fuel risk will be done in a fuel-neutral manner. However, its document describing its process only refers to risks associated with greater reliance on natural gas and the language suggests that PJM has already made an unsupported predetermination that natural gas is a weak link in their ability to be reliable and resilient.<sup>56</sup>

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<sup>53</sup> PJM Cold Snap Report at 16.

<sup>54</sup> *Id.* at 17.

<sup>55</sup> *Id.* at 20.

<sup>56</sup> See pages 1-2 of PJM paper, Valuing Fuel Security, issued April 30, 2018. The process document states that "PJM needs to understand the fuel-supply risks in an environment trending towards greater reliance on natural gas supply and delivery" and "constraints may be beyond the ability of any individual unit owner to control through more secure fuel contracts or investment in particular units."

While PJM states that it plans to rely on market forces to meet its fuel security needs, if the criteria for what is deemed “fuel secure” is inaccurate, inappropriate or discriminates against a specific fuel, then the outcome of the capacity auction for those locations also has the potential to produce discriminatory out-of-market outcomes. Depending on the criteria utilized, this effort could become yet another non-competitive means to financially support uneconomic units in the name of resilience and at the expense of units that reliably run on natural gas despite their performance record. In that case, introducing what amounts to an additional layer of command and control regulation is more likely to hinder than help the market develop alternative, innovative, and more economic approaches to providing a higher level of performance.

As discussed in more detail in Section 8(F) below, market price signals should result in less regulatory controls and those signals should give operators confidence in unit performance with minimal need to second guess whether generators have taken the proper steps required to reliably perform, including the security of their fuel procurement. Thus, PJM should ensure generators have the right market signals and let the generators figure out the best way to provide the most reliable power or “fuel secure” resources required of them to perform.

Also, NGSAs question why additional steps are warranted at this time without first testing the effectiveness of its capacity performance program in providing fuel secure resources. PJM’s reason for designing and implementing its capacity performance mechanism was to “address the risks of fuel security associated with individual generating plants by incenting the “firming” of fuel supply through firm gas service contracts, or firm service contracts with greater flexibility, or the installation of dual fuel capability, which combines back-up oil fuel with primary natural gas fuel.”<sup>57</sup> Furthermore, PJM just came out of its first winter operating under

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<sup>57</sup> See p. 36 of PJM’s Evolving Resource Mix and System Reliability (<http://pjm.com/-/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx?la=en>). Also see *PJM*

its capacity performance program and, according to its cold snap report, PJM has already seen substantial improvements in generator performance as compared to the Polar Vortex timeframe with a “significant reduction in forced outages” and “(t)here were no reported firm capacity restrictions during this period.”<sup>58</sup> Therefore, it is confusing why PJM feels that, even with the initial positive success in its first year of operating under its capacity performance program, it needs to take further steps that dictate how generators opt to meet their commitments.

Additionally, in PJM’s newly-initiated fuel security initiative, PJM states that it plans to simulate this past winter’s cold snap as well as the 2014 Polar Vortex. This raises another concern that PJM may once again model the total forced outages for gas generators as opposed to modeling only physical operational disruptions to the flow of natural gas, which constitutes only a very small portion of the total “lack of fuel” outages reported to NERC under GADS. In addition to actual natural gas operational disruptions, there are a host of other causes for forced outages by gas generators such as not contracting for firm service at primary points, an unwillingness to pay the price of gas, and pipelines requiring generators to comply with tariff and contract provisions rather than continuing to take more than the contract allows. In most instances, the forced outage is due to these other causes and not natural gas supply disruptions that result in an inability to deliver contracted quantities. However, in a prior assessment of outages in its March 30, 2017 study of its evolving resource mix, PJM modeled gas generator

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*Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 8(2015). (PJM’s capacity performance program was “designed to ensure that resources committed as capacity to meet PJM’s reliability needs will deliver the promised energy and reserves when called upon in emergencies, and thus will provide the reliability that the region expects and requires.”

<sup>58</sup> See pp. 1-2 and 17 of PJM Cold Snap Performance, Feb. 26, 2018. “Many factors drove this improved performance. In addition to milder weather, these include enhancements PJM and its member companies have put in place in the years since the Polar Vortex, such as increased investment in existing resources, improved performance incentives, enhanced winterization measures and increased gas-electric coordination.” p. 2.

outages using the generator performance data without limiting it to outages related to physical disruptions, which can distort the outcome of modeling results.<sup>59</sup>

Similarly, to be reflective of reality, PJM should only model physical disruptions of pipeline operations and also should acknowledge that any analysis of the Polar Vortex is no longer reflective of today's market behavior and performance given that PJM's capacity performance rules were not in place at that time. If these inaccuracies are modeled, the calculated vulnerabilities in the study will also be inaccurate and biased against natural gas.

*9. The Commission should consider the principles outlined below as it reviews requests directed at the natural gas industry.*

Several RTOs/ISOs made requests in their submissions for natural gas industry actions, with PJM's requests far exceeding those made by other RTOs/ISOs. Among other things, PJM's requested actions include mandatory standardized information sharing by pipelines; sharing of a pipeline's known vulnerabilities; establishment and sharing of real-time contingency modeling; real-time coordination with PJM; restoration coordination with PJM; 24-houring staffing; tailored services or specific tariffs for generators coupled with the Commission review of each pipeline's utilization efficiency; alignment of interconnection activities and timelines; harmonization of cyber and physical security standards; and FERC-directed communication and coordination by state-regulated LDCs.

NGSA encourages natural gas pipeline companies and the RTOs/ISOs to continue discussions and work toward mutually-agreeable solutions. As pointed out by NYISO, substantial progress has already been made in information sharing between the two industries.<sup>60</sup>

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<sup>59</sup> See Sensitivity Analysis: Polar Vortex Event, p. 40 of Appendix to PJM's Evolving Resource Mix and System Reliability (March 30, 2017).

<sup>60</sup> NYISO comments at 13.

Also, pipelines are finding ways to accommodate generator needs to the extent they have the operational capability to do so on a non-discriminatory basis. For instance, some pipelines have incorporated intra-day nomination cycles when possible to the extent that those cycles do not interfere with the current nomination cycles and we encourage more pipelines to do the same.

NGSA recognizes that most of PJM's requests are directed at increased pipeline regulations and therefore, are most appropriately worked out between the pipelines, their power customers and the regional operators. Therefore, NGSA is not commenting in great detail on the merits of each individual RTO request. However, we ask that the Commission carefully consider the following principles as it reviews and considers actions proposed by RTOs that relate to the natural gas industry:

- A. Strive to decrease, not increase, the level of regulation.**
- B. Ensure the benefits of proposed actions outweigh the costs.**
- C. Ensure concrete evidence is presented to support claims that a problem exists.**
- D. Do not address isolated issues through federal regulatory requirements.**
- E. Question instances in which only one RTO sees a need for prescriptive natural gas actions.**
- F. Consider whether requested natural gas changes are issues that are more appropriately addressed by power market design changes.**
- G. Protect existing pipeline shippers from being adversely impacted.**

Each of these principles are described in more detail in the sections below.

***A. Strive to decrease, not increase, the level of regulation.***

In line with President Trump's Executive Order on regulatory reform, FERC, like other federal agencies, is looking for ways to decrease, not increase, federal regulations or mandates.<sup>61</sup>

While markets are fully capable of addressing the need for new product offerings, regulatory

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<sup>61</sup> Executive order requiring federal agencies to cut two existing regulations for every new regulation they implement. <https://www.whitehouse.gov/presidential-actions/presidential-executive-order-reducing-regulation-controlling-regulatory-costs/>. While FERC is an independent agency that is not compelled to comply with this order, they have announced an intention to comply with the spirit of the executive order.

actions tend to lock in the old and current ways of operating instead of letting the market dictate changes. Also, pipelines have a financial incentive to provide services that their customers request in order to realize greater profits. Therefore, pipelines should be economically motivated without direction by regulators to look for ways to more efficiently use their systems to their fullest by creating and offering services that customers request.

***B. Ensure the benefits of proposed actions outweigh the costs.***

As discussed above, RTOs/ISOs emphasized that they cannot plan for every possible vulnerability. PJM states that, “RTOs should not be required to plan and design the BES to be invulnerable to a broad spectrum of hazards and corresponding impacts - regardless of the cost to do so or the incremental value that may be achieved in making such improvements for a contingency that will rarely, if ever, occur.”<sup>62</sup> MISO told the Commission that they needed more dialogue with stakeholders and state regulators on the cost and value of mitigating low-frequency events.<sup>63</sup> Natural gas companies are no different than RTOs/ISOs in that they cannot cost-effectively prepare for every conceivable contingency or action that RTOs/ISOs might face, especially if those actions are not economically justified. Moreover, FERC has the responsibility to ensure that interstate pipeline rates are just and reasonable so that gas customers are not burdened with unsubstantiated costs.<sup>64</sup>

***C. Ensure concrete evidence is presented to support claims that a problem exists.***

Rather than “throwing spaghetti on the wall,” FERC must ensure requests intended to resolve issues related to resilience are supported by concrete evidence and not speculation. As

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<sup>62</sup> PJM comments at 10.

<sup>63</sup> MISO comments at 34.

<sup>64</sup> This is particularly true when the requested actions are primarily associated with precautionary planning purposes and are not reflective of any actual problems associated with resilience.

exemplified by efforts to change the Gas Day from 9am CT to 4am CT, exorbitant amounts of time and resources can be devoted to finding solutions to problems that have not been substantiated.<sup>65</sup> As mentioned above, in a 2017 study, NERC recommended improving the cause codes related to “lack of fuel” in order to provide greater clarity about what actually caused a gas generator outage – whether the outage was due to economic/price or contract issues, tariff restrictions or physical operational issues in the gas industry impacting deliveries.<sup>66</sup> NERC has created a committee focused on this recommendation and, once new cause codes are implemented, we are hopeful that there will be less instances in which there is a need to speculate about the root causes of generator outages; allowing more time to be devoted to addressing actual problems.

***D. Federal regulatory requirements should not be used as a means to address isolated issues.***

If an RTO has an isolated issue associated with one or a few pipelines operating in their region, those issues should be solved between those parties and not through adoption of new requirements that impact all federally-regulated pipelines. Also, as evidenced by the scope and array of service offerings today, solutions should be pipeline-specific and not generically implemented across all FERC-jurisdictional pipelines. PJM recognized this point when it stated

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<sup>65</sup> See *Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities*, Order No. 809, FERC Stats. & Regs. ¶ 31,368, at P 25 (2015). FERC found that the record did not support changing the nationwide gas day after FERC sent a data request to RTOs who provide limited evidence showing de-rates associated with gas day start during the morning ramp.

<sup>66</sup> North American Electric Reliability Corporation, *Special Reliability Assessment: Potential Bulk Power System Impacts Due to Severe Disruptions on the Natural Gas System* (Nov. 2017). “The NERC GADS database should be modified to provide additional information on duration as well as frequency and cause codes for natural gas outages so that a more specific causality can be formulated around natural gas generator outages. This information should be used to work toward mitigation of common causes of failure.” *Id.* at x. Also, PJM’s Cold Snap Report’s findings suggest that price and contract issues accounted for the bulk of the forced outages during that period. See *PJM Cold Snap Performance Dec. 28, 2017 to Jan. 7, 2018*, at 13-14 (Feb. 26, 2018) (“PJM Cold Snap Report”), <http://pjm.com/~media/library/reports-notice/weather-related/20180226-january-2018-cold-weather-event-report.ashx>.

in its submission that “examination of these issues [should be] on an individual pipeline basis ... to reflect the very different circumstances realized by different pipelines and regions.”<sup>67</sup>

***E. Question instances in which only one RTO sees a need for prescriptive natural gas actions.***

Other RTOs/ISOs did not express the same need for FERC to mandate natural gas industry actions as PJM. NYISO commented that gas-electric coordination has improved over time,<sup>68</sup> and ERCOT states that, through its participation in the ISO/RTO Council’s Gas-Electric Coordination Task Force, the exchange of best practices and discussion of current issues with the gas industry and other RTOs/ISOs has “resulted in greater coordination between ERCOT and the gas pipeline companies during gas curtailment events.”<sup>69</sup> ISO-NE stated that they have the information they need to assess reliability of the BPS.<sup>70</sup> MISO pointed out that it has studied extreme events and found that natural gas pipeline contingencies do not represent an imminent or immediate resilience risk.<sup>71</sup> Given this disparity, FERC should look closely at those instances when only a single operator makes a request that other RTOs did not see as important, especially when they are in similar situations. There may be underlying reasons for why a single operator may feel compelled to rely on command and control actions. In any event, a national solution does not seem to be warranted in those instances.

***F. Consider whether requested natural gas changes are issues that are more appropriately addressed by power market design changes.***

As ERCOT stated in their submission, “[o]ne of the most important factors ... is robust scarcity pricing,” which is “designed to alleviate the need for many resilience-based regulatory

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<sup>67</sup> PJM comments at 59.

<sup>68</sup> NYISO comments at 13.

<sup>69</sup> ERCOT comments at 19.

<sup>70</sup> ISO-NE comments at 55.

<sup>71</sup> MISO comments at 23.

controls.”<sup>72</sup> NGSAs agree that market price signals should result in less regulatory controls and those signals should give operators confidence in unit performance with minimal need to second-guess whether generators have taken the proper steps required to reliably perform, including the security of their fuel procurement. Therefore, if an operator expresses a need to look behind a generator’s power market commitments, it is likely that increasing the operator’s confidence in that generator’s ability to perform would be more directly and more appropriately addressed in the regional power market.<sup>73</sup>

In several regional markets, generators receive capacity payments when they clear the capacity auction in exchange for a commitment that the generator will offer capacity into that market. As such, reliable service should be a prerequisite for generators receiving capacity payments and the opportunity to participate in the market. More recently, capacity performance proposals approved and implemented in ISO-NE and PJM have introduced incentives and penalties that should provide an even higher level of performance. If more is needed above and beyond capacity payments and capacity performance, regional operators should consider whether further adjustments should be made to these programs to ensure the market signals are effective so that they have the confidence they need that commitments will be honored.

***G. Protect existing pipeline shippers from being adversely impacted.***

As we continue to focus on the increased use and the importance of natural gas for power, we cannot forget that other natural gas customers make up nearly 64% of total natural gas demand.<sup>74</sup> The needs of those customers are also important – whether it is to serve winter heating load or to manufacture products that support the U.S. economy. Many non-power

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<sup>72</sup> ERCOT comments at 4-5.

<sup>73</sup> ERCOT points to its scarcity pricing as one of the most important factors in their region that has alleviated the need for them to impose resilience-based regulatory controls. *Id.* at 5.

<sup>74</sup> See [https://www.eia.gov/energyexplained/index.cfm?page=natural\\_gas\\_use](https://www.eia.gov/energyexplained/index.cfm?page=natural_gas_use) (2016).

customers hold firm transportation on pipelines because they cannot afford for their service to be disrupted. Also, the capacity built for many of the existing customers has afforded gas generators the ability to depend on pipeline services in many instances without the need for increases in capacity to be built on their behalf. Therefore, existing customers' services should not be adversely impacted by changes made to accommodate more flexible generator services.<sup>75</sup>

Additionally, non-power pipeline customers cannot lose their priority as firm contract holders through proposed gas/electric coordinated restoration planning. Given the finite capacity of pipelines, flexible services will require pipelines to have sufficient capacity to accommodate such swings without impacting physical delivery to other customers.

*10. Transactions with marketers and asset managers provide generators with a vast array of options in which to procure natural gas with as much flexibility and firmness as they require to support grid resilience.*

PJM acknowledges in its submission that generators have found options other than contracting directly with a pipeline to "firm up" their gas supplies. However, PJM states that it does not believe that secondary market transactions are sufficient for generators to rely upon to meet long-term demand because the diversity in demand that currently allows generators to use capacity held by LDCs and industrial customers may not be available as demand increases.<sup>76</sup>

NGSA does not agree. We know that transactions with marketers and asset managers are very valid tools that can be used to support generator performance over the long-term.

In addition to the "moving around" of firm customers' pipeline capacity through capacity release, the secondary market includes contracting with marketers or asset managers that may directly hold capacity on a pipeline. Marketers and asset managers have the capability to provide

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<sup>75</sup> The creation of new services occurs when customers want, request and have a willingness to pay for those services. Absent customer interest, creation of services that are not utilized will merely be an expensive exercise in futility. For instance, the Texas Eastern open season cited by PJM as the one notable pipeline effort to provide enhanced electric service was unsuccessful due to a lack of generator interest.

<sup>76</sup> PJM comments at 58.

services that are just as firm as service provided directly from a pipeline depending on the needs of the customer and the assets available. Rather than spending time to separately contract with individual suppliers and multiple pipelines, generators can opt for one-stop shopping with marketers that have a wide-array of assets as well as the experience to provide the types of services generators need. Also, since marketers and asset managers generate revenue by using their assets as efficiently as possible, contracting with them can often result in cost savings for the generator.

#### **IV. Conclusion**

NGSA appreciates the Commission's openness to receiving input from all stakeholders in this proceeding and we look forward to further constructive dialogue as the Commission explores ways to continue to embrace competitive markets while maintaining grid reliability and resilience. Improving market signals, not distorting market signals through market intervention and subsidies, is the best solution.

Respectfully submitted,

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