

Joint Comments of the American Petroleum Institute, Independent Petroleum Association of America, Interstate Natural Gas Association of America, Natural Gas Supply Association PJM's Valuing Fuel Security Initiative, Draft Problem Statement and Issue Charge

On February 21, 2019, PJM Interconnection, LLC (PJM) announced its proposed problem statement and issue charge for the fuel security effort and asked for feedback on these documents by March 7. The undersigned organizations¹ appreciate PJM's engagement with the natural gas industry through these organizations and their individual members. We believe this engagement contributed to the reasonable assumptions used by PJM In Phase I of its fuel security study and the results, which show that there is no imminent threat within the region and that the system is "reliable today and will remain reliable into the future."² We look forward to continued engagement with PJM in these later phases of its fuel security effort.

As PJM continues through the final phases of the fuel security effort, we encourage PJM to maintain a course of action that provides reasonable time for thoughtful and data-driven analysis of the necessary level of fuel security and what, if any, actions are required to achieve those results. The undersigned organizations have some concerns about the proposed problem statement and issue charge, as drafted. Our concerns and proposed changes are provided below.

¹ The undersigned organizations are four associations composed of thousands of companies that represent the natural gas industry from start to finish –from the wellhead to the end user. The Council addresses industry issues and concerns, and issues joint statements, reports, letters and filings representing the unified views of the industry (naturalgascouncil.org).

² https://www.pjm.com/-/media/library/reports-notices/fuel-security/2018-fuel-security-analysis.ashx

(1) PJM should provide time for a more deliberative process to determine the best way to study the likelihood of occurrence of the 324 scenarios.

PJM should modify its study timeline to allow for a thorough analysis and a complete review by the task force as well as subject matter experts from the electric, natural gas and other sectors. PJM should not succumb to pressure by those that stand to be economically advantaged by out of market actions to rush the analysis and to propose market design changes. PJM has acknowledged that "there is no immediate threat to system reliability."³ Given the scope of this effort and detailed analysis required to conduct and review PJM's study, we agree with the numerous parties that raised timing concerns on the last MRC call: it is simply unrealistic for PJM to expect that it will be in a position in mid-2019 to determine what actions, if any, are required and to prepare and submit a proposal to FERC before the end of the year.

(2) The problem statement should not make assumptions about what market and operation changes, if any, will result from the task force efforts.

PJM should revise its problem statement and issue charge to clearly state that any need to make market changes to value fuel security will be evaluated and determined by the task force, PJM's stakeholders and other participants. The purpose of PJM's stakeholder process is to consider the costs and benefits prior to any potential market changes. However, the problem statement reads as though it is a forgone conclusion that there is a need to make market changes to value fuel security. While Step 3 of PJM's problem statement is to "Determine whether there is a quantifiable and locational requirement for fuel secure resources in PJM," Step 6 is without qualification: "Determine the mechanism to value fuel security in PJM." PJM should let the task force complete its assigned tasks before making decisions about market changes.

³ https://www.pjm.com/-/media/library/reports-notices/fuel-security/2018-fuel-security-analysis.ashx?la=en

As PJM stated in its March 2018 submission to FERC on resilience, an important consideration when establishing resilience criteria is that it is not economically efficient to protect the Bulk Electric System (BES) from every conceivable risk.⁴ PJM also stated that RTOs/ISOs should not be required to plan and design the BES to be invulnerable to contingencies that "will rarely, if ever, occur" without first considering the cost of doing so or the incremental value that may be achieved in making such improvements.⁵ The purpose of PJM's stakeholder process is to consider such benefits and drawbacks before making any market changes.

(3) The undersigned organizations encourage PJM to revise the problem statement and issue charge to ensure that the task force employs a risk-based approach, bound by realistic and historical scenarios when determining the criteria required for regional fuel security.

The task force should review fuel security as part of a broader system-wide evaluation of all risks that threaten electric grid stability, bound by realistic and historical scenarios when determining what level of fuel security is required in the PJM region. Analyzing fuel security issues in isolation without evaluating them against the myriad of other risks that the electric grid faces provides an incomplete measure of the overall risk to the electric grid and, therefore, should not be the primary driver for consideration of new reliability and resilience actions. For example, the likelihood and impact of a natural gas pipeline failure on generators' fuel supply must be weighed against the likelihood and impact of weather-related or other *force majeure* events that threaten electric system, and an analysis of the likelihood of the occurrence of various assumptions used in modeling scenarios, PJM may design its system beyond what is necessary to ensure a reliable system.

 ⁴ COMMENTS AND RESPONSES OF PJM INTERCONNECTION, L.L.C., Grid Resilience in Regional Transmission Organizations and Independent System Operators at p. 41, Docket No. AD18-7-000
⁵ Id.

(4) PJM has not sufficiently explained why the current reserve margin levels and successful capacity performance program are insufficient for addressing outages that may occur due to increased reliance on natural gas.

PJM attempts to show a distinction between this fuel security effort and the capacity performance program by stating that fuel security focuses on regional performance while capacity performance is focused on specific unit performance. However, because the PJM region is a sum of its parts, we see this as a distinction without a difference. 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."⁶ Furthermore, performance continues to improve. PJM now has nearly three winters of operational experience under the capacity performance program. According to its own cold snap report issued on Feb. 26, 2018,⁷ generator performance has substantially improved as compared to the 2014 Polar Vortex,⁸ and existing market mechanisms are succeeding in continuing to reduce fuel security risks. Based on this performance record coupled with an extraordinarily healthy reserve margin, it is unclear why PJM believes it must consider further steps that would dictate how generators meet their commitments and plan for contingencies.

(5) When defining "fuel secure" resources, PJM should not be overly-prescriptive and should recognize that there is not one monolithic definition.

⁶ See p. 36 of PJM's Evolving Resource Mix and System Reliability (http://pjm.com/-

[/]media/library/reportsnotices/special-reports/20170330-pjms-evolving-resource-mix-and-systemreliability.ashx?la=en). Also see PJM 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.").

⁷ https://www.pjm.com/-/media/library/reports-notices/weather-related/20180226-january-2018-cold-weather-event-report.ashx

⁸ There was a "significant reduction in forced outages" and "no reported firm capacity restrictions during this period." PJM reports that there were 9,300 MW of "Natural Gas Supply-Related Outages" on Jan. 7, 2014 (during the 2014 polar vortex event), 5,913 MW of outages on Jan. 7, 2018 (during the 2018 winter peak), and less than 3,000 MW of outages during the Jan. 28 – Jan. 31, 2019 cold weather event. Id.

PJM should ensure fuel neutrality when developing the attributes, criteria or quantitative measurements that may be used to define a fuel secure unit. The unique nature of each generator requires that a broad description be used to define a "fuel secure" resource, which does not easily conform to a one-size-fits-all approach to fuel security. Characteristics such as location, availability of firm transportation and storage contracts, the need or existence of dual fuel, proximity to storage and production (in the case of natural gas), and access to multiple pipelines and the looped pipeline systems (both interstate and intrastate) all contribute to the reliability of a resource.

There have been recent political attempts to use the term "fuel secure" in order to give unfair advantages to resources such as coal and nuclear in the form of support for out-of-market subsidies.⁹ However, natural gas has proven to be an essential resource to ensure fuel security and has many capabilities that strengthen grid reliability, such as fast-ramping to support renewable energy sources and black start capabilities. Thus, natural gas continues to be a reliable and fuel-secure resource in the PJM region, which is exemplified in PJM's Phase I Fuel Security Analysis. Out of the 324 scenarios reported, only a few of the most extreme scenarios, which combined multiple unlikely events occurring simultaneously, resulted in a potential reliability problem.¹⁰ Per PJM, "Even in a scenario such as extreme winter load combined with a pipeline disruption at a critical location on the pipeline system from which a significant number of generators are served, PJM's system would remain reliable and fuel secure."¹¹

(6) PJM should recognize that all fuel sources have vulnerabilities and should not single out natural gas for special attention.

 ⁹ See May 29th Draft DOE Memo https://www.eenews.net/assets/2018/06/01/document_gw_01.pdf
¹⁰ https://www.pjm.com/-/media/library/reports-notices/fuel-security/2018-fuel-security-analysis.ashx at page 3
¹¹ Id.

Physical and cyber security threats are not a unique trait of the natural gas industry; wind, solar, coal and nuclear generation facilities also face an increasing number of threats. "Fuel secure" power plants that use coal are susceptible to hackers and physical attacks; and disturbingly, the state of cyber readiness at thousands of coal generating units across the nation is largely unknown to the federal government.¹² A cyberattack has yet to knowingly disrupt the flow of natural gas or electricity generated by natural gas anywhere in the U.S.¹³ During major weather events, outages have been directly attributable to on-site fuel issues at all types of generating facilities, including nuclear plant reactors shuttering as a result of ice clogging the screens that protect their cooling water intake,¹⁴ frozen coal storage piles at coal generation facilities, ¹⁵ and icing on wind turbine equipment.¹⁶ As noted previously, the performance of natural gas generators within the PJM region during cold weather events has continued to improve. During the 2017-2018 cold snap, 100% of customers with firm natural gas transportation contracts received their supply.¹⁷ Likewise, during the 2019 polar vortex, gas and electricity prices remained low despite the freezing temperatures and record levels of consumption.¹⁸

(7) The natural gas industry welcomes the opportunity to remain engaged during PJM's Phase II analysis.

The undersigned organizations ask PJM to take steps to incorporate this feedback in its fuel security

problem statement and issue charge and welcomes the opportunity to remain closely engaged with PJM

¹²Blake Sobczak, Coal Plants' Vulnerabilities are Largely Unknown to Feds, E&E News (2018), https://www.eenews.net/stories/1060086303.

¹³ Id.

¹⁴ Polar Vortex Reveals Growing Role for Gas in Midwest, February 5, 2019 available at https://www.eenews.net/stories/1060119619

¹⁵https://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept _2014_Final.pdf

¹⁶ https://www.pjm.com/-/media/library/reports-notices/weather-related/20180226-january-2018-cold-weather-event-report.ashx see page 19

¹⁷ PJM Cold Snap Performance, Dec. 28, 2017 to Jan. 7, 2018, PJM Interconnection, Feb. 26, 2018 available at http://www.pjm.com/-/media/library/reports-notices/weather-related/20180226-january2018-cold-weather-event-report.ashx.

¹⁸ https://www.eia.gov/todayinenergy/detail.php?id=38472#tab1

during this process through meaningful discussion of issues related to gas and electricity reliability and resilience.

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Respectfully submitted,

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