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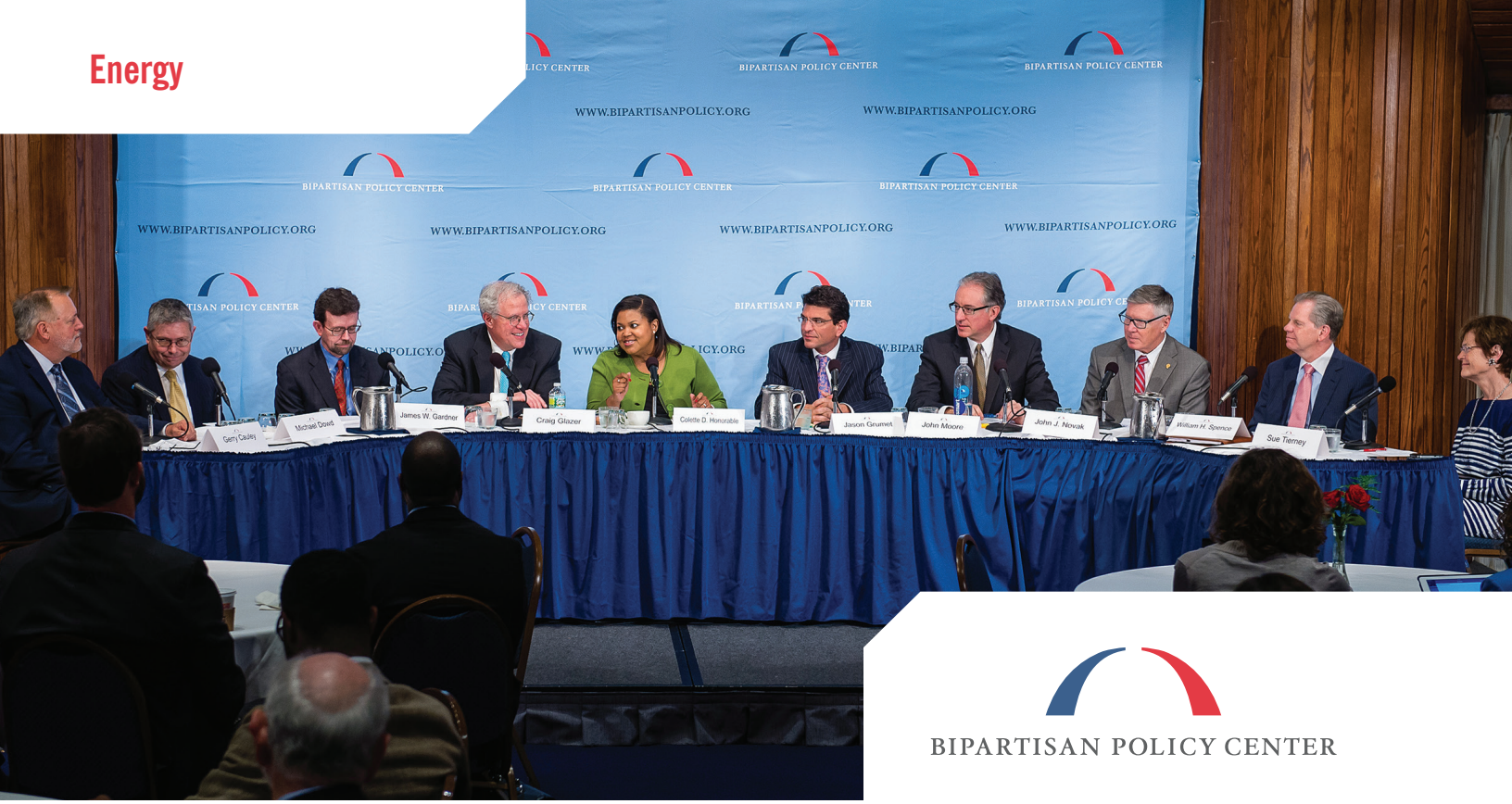


BIPARTISAN POLICY CENTER

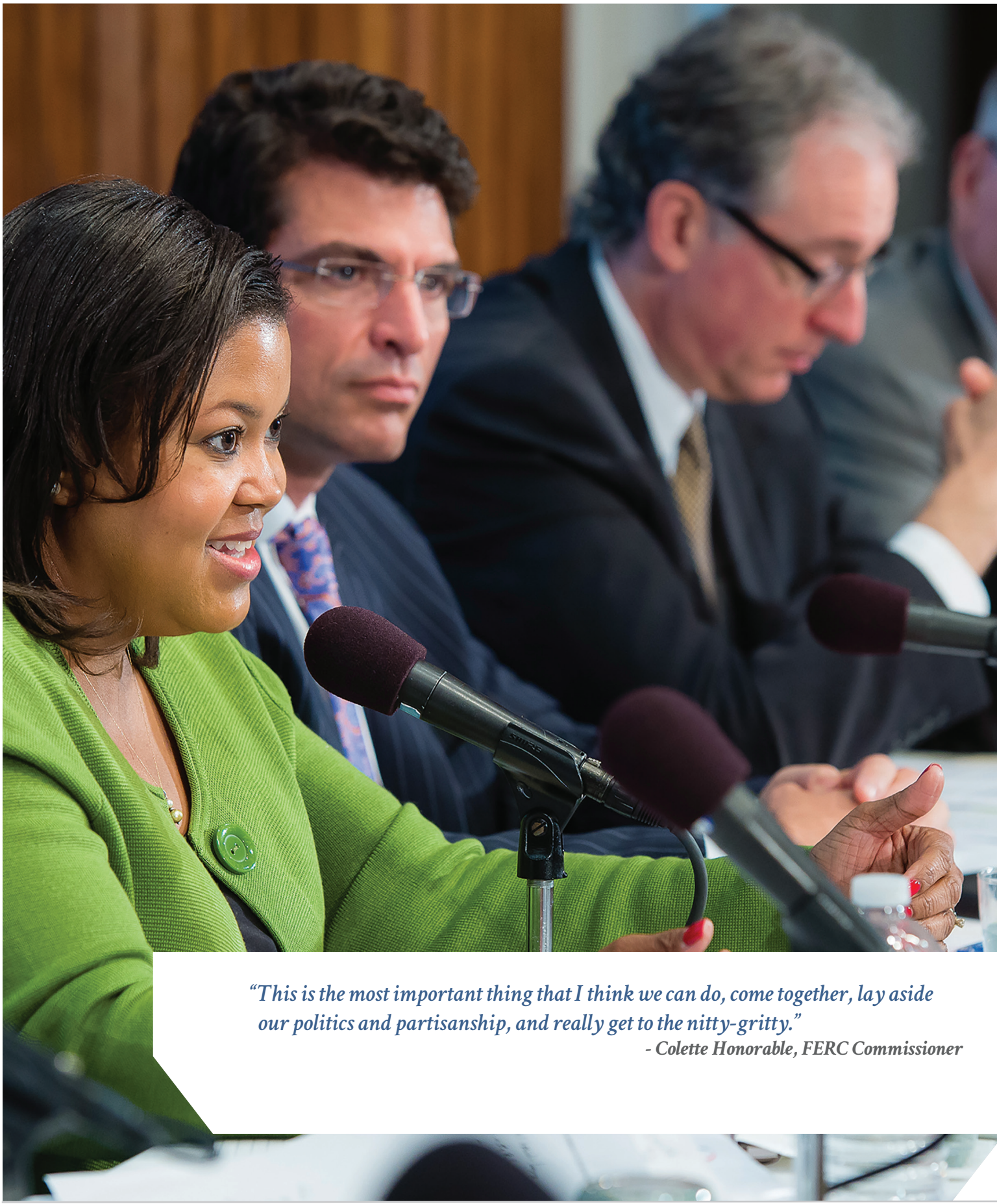
Proposed Reliability Mechanisms for the Clean Power Plan

June 2015

Event Summary

Over the past few months, the Federal Energy Regulatory Commission (FERC) has held a series of technical conferences across the country to explore the potential impacts of the U.S. Environmental Protection Agency's (EPA) proposed Clean Power Plan. While FERC's technical conferences covered a broad array of issues, reliability emerged as a key topic. Two reliability-related proposals in particular were discussed by a number of speakers: the reliability assurance mechanism (RAM) and the reliability safety valve (RSV). Several stakeholders have proposed variations on these mechanisms in their comments to EPA, and suggested that FERC play a significant role in implementing either or both of these mechanisms.

On May 8, 2015, the Bipartisan Policy Center (BPC) hosted a half-day technical workshop in Washington, D.C., to delve into the details of designing and implementing a RAM and/or RSV. FERC Commissioner Colette Honorable and BPC President Jason Grumet led the discussion. Participants included Gerry Cauley, president and CEO of North American Electric Reliability Corporation (NERC); Michael Dowd, director of air division, Virginia Department of Environmental Quality; Hon. James Gardner, vice chairman of the Kentucky Public Service Commission, on behalf of the National Association of Regulatory Utility Commissioners (NARUC); Craig Glazer, vice president, federal government policy, PJM Interconnection, on behalf of the ISO/RTO Council; John Moore, senior attorney, Natural Resources Defense Council's Sustainable FERC Project; John Novak, executive director for environmental issues, National Rural Electric Cooperative Association (NRECA); William Spence, chairman, president, and CEO, PPL Corporation, on behalf of the Edison Electric Institute (EEI); and Dr. Susan Tierney, senior advisor, Analysis Group.



"This is the most important thing that I think we can do, come together, lay aside our politics and partisanship, and really get to the nitty-gritty."

- Colette Honorable, FERC Commissioner

The conversation covered current reliability risks in the power sector, the potential for new challenges under the Clean Power Plan, the merits of introducing additional reliability mechanisms into the process, and suggestions for design and implementation features. A summary of the key points raised in the discussion follows.

Current Reliability Concerns in the Industry

The Clean Power Plan is being implemented during a time of significant transition in the power sector. For this reason, participants cited a number of potential reliability concerns and risks that regulators and industry must consider and plan for in implementing the Clean Power Plan. The primary driver of these concerns is the power sector's increasing reliance on natural gas and an overall loss of production capacity due to coal retirements. Additional considerations include the balancing required to integrate variable renewable resources and the potential for forced outages at nuclear facilities.

As NERC President and CEO Gerry Cauley noted, the power sector transition creates new challenges for meeting capacity needs on peak days; ensuring reliable electricity delivery given changes in the location of generation and the need for new transmission; and ensuring availability of spinning reserves needed for voltage stability. He further suggested that the system as a whole is losing tolerance, which increases the risk of reliability problems due to unforeseen events. Craig Glazer, representing the ISO/RTO Council, described an additional risk created by regulatory uncertainty and pending litigation, such as the litigation over FERC Order No. 745, which could affect the ability of market operators to call upon demand response.

Existing Tools are in Place to Address Reliability Risks

As Sue Tierney of the Analysis Group noted, "All of the issues that we've been hearing right now in terms of retirements, the expectation that there will be more reliance on natural gas, imports of power across state lines, integrating renewables—all of those things are happening whether or not the Clean Power Plan is happening." Further, existing market structures and tools available to market operators are already in place to ensure reliability in the face of these changes. FERC, NERC, and RTO/ISOs perform reliability assessments to identify potential vulnerabilities and corrective actions. In addition, integrated resource planning is required in many states, and, in competitive markets, price signals help to encourage the shifting of generation to meet demand and development of new capacity. Finally, reliability must-run contracts provide market operators a tool to ensure that units essential to meeting reserve margin requirements remain in service.

The Clean Power Plan also contains inherent flexibility that should help with addressing reliability concerns. As John Moore from NRDC noted, "We think that the Clean Power Plan has four or five RSVs already built into it." For example, the inclusion of a two-year rolling average with shoulder periods, and the ability to utilize market mechanisms and regional cooperation, should enable states to temporarily dispatch more carbon-intensive electricity in the wake of reliability challenges while also maintaining both compliance with the program and the overall environmental performance. As Tierney, of the Analysis Group, noted, if states are open to allowing trading as part of their plan, market solutions can allow spatial and temporal adjustment without allowing excess CO_2 into the atmosphere.

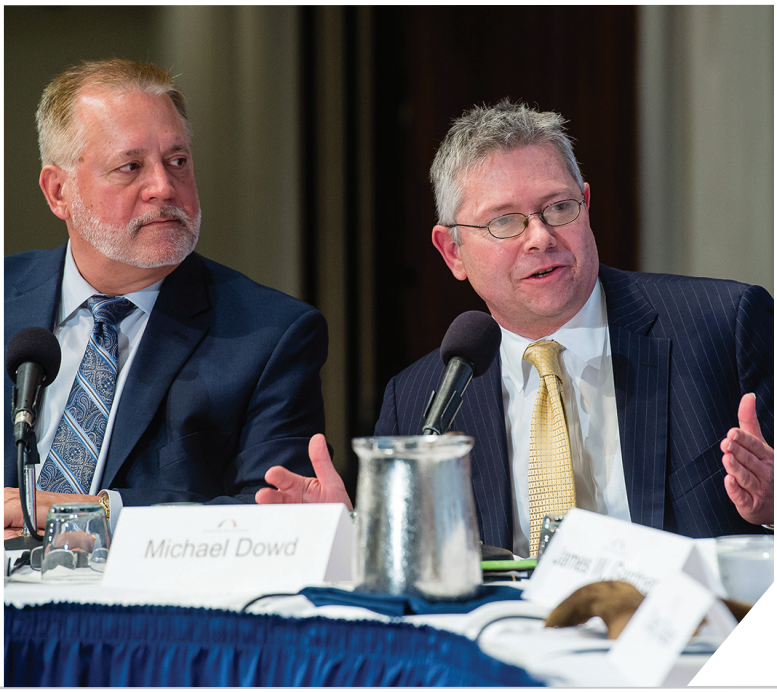
Others on the panel emphasized that it is premature to assume that robust carbon markets will be available to allow for the shifting of emissions reductions. Participants representing NERC, state regulators, and power sector entities all emphasized the value of having a safety valve–intended for limited use and requiring a high burden of proof–to address potential compliance violations caused by actions necessary to maintain reliability. As William Spence, representing EEI, argued, such a "relief valve" is essential to addressing the potential scenario when a utility is ordered to do something to maintain reliability that potentially conflicts with its compliance obligation under the Clean Power Plan.

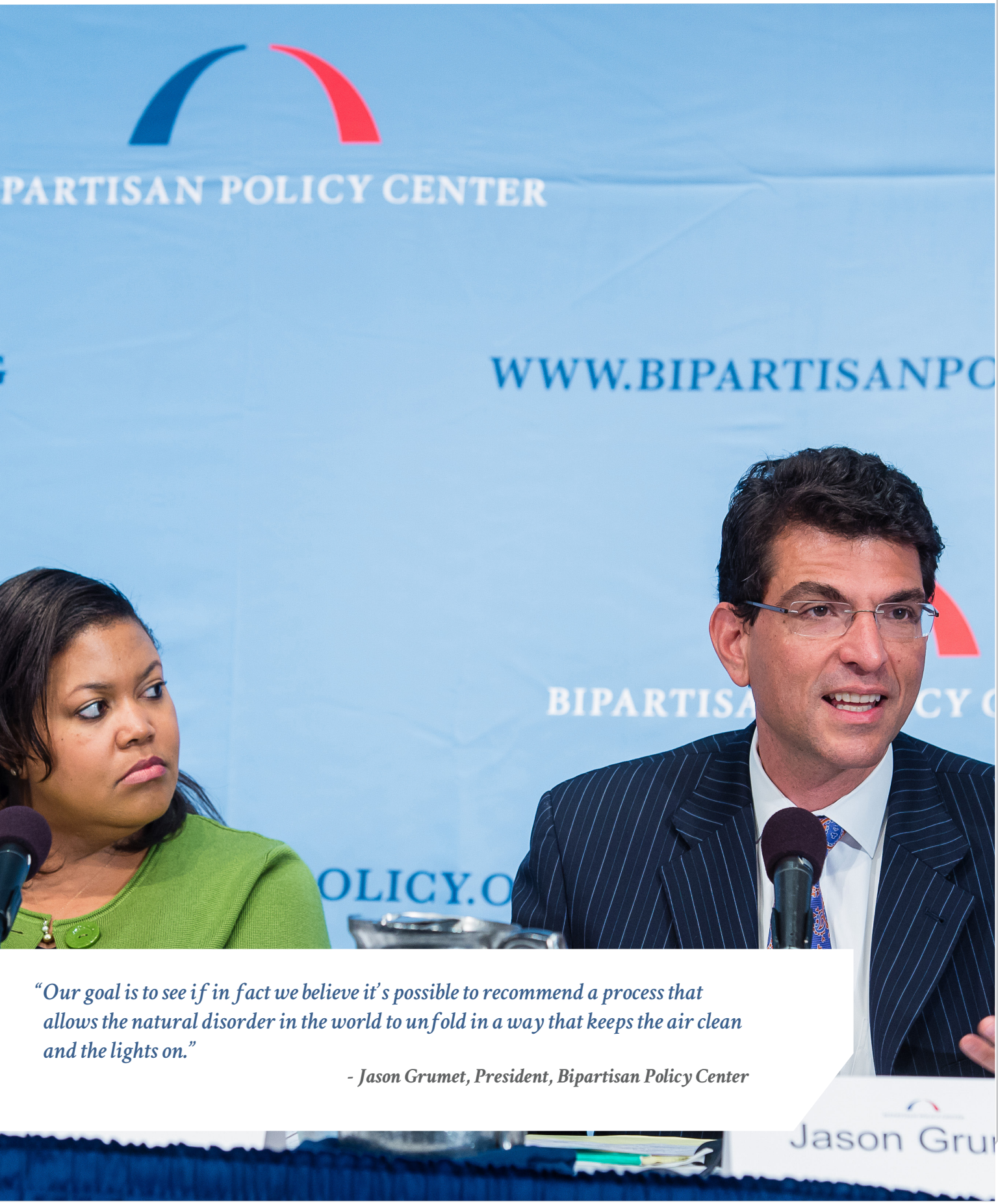
Reliability Assessment Should be the First Step

All panelists agreed that there was a need for an upfront (and ongoing) assessment of the reliability impacts of state plans and that this should be the primary mechanism for addressing potential reliability issues that might stem from implementation of a state's compliance plan. Participants discussed the following key points:

- Individual state plans should be reviewed for potential reliability impacts as soon as possible, and analysis should be updated as more information becomes available. Ideally, initial assessment would occur during the individual state's process, but otherwise it should occur when EPA is reviewing the state's plan. FERC, NERC, and RTOs/ISOs could be involved in assessing state plans for reliability impacts.
- Assessment of reliability impacts should also include the impacts of a state's plan on neighboring states. Participants noted that RTOs would play an important role in highlighting where one state's plan might threaten reliability in another state. NRDC's Moore also noted that Clean Power Plan compliance planning will factor into regional plans under FERC Order No. 1000, which requires consideration of public policy requirements for transmission planning. He noted that the Order No. 1000 process is likely to be helpful for reliability issue-spotting.
- Although EPA does not have specific authority to make determinations regarding reliability, it could request that states include analysis of reliability metrics in their state plans. Panelists recommended that EPA be able to send back any state plan that may cause reliability issues, either in the state itself or in neighboring states.
- FERC could potentially use its authorities under the Federal Power Act to call for periodic assessments of the impact of state plans. FERC could rely on NERC, RTOs, balancing authorities, etc., to evaluate state plans and identify reliability issues. FERC could advise EPA on the findings of such analysis. The interim goal period from 2020 to 2029 —which allows timing flexibility in order to phase in reduction requirements, as well as broad averaging— offers time for more detailed and integrated reliability assessments to highlight any vulnerabilities and potential corrective actions.

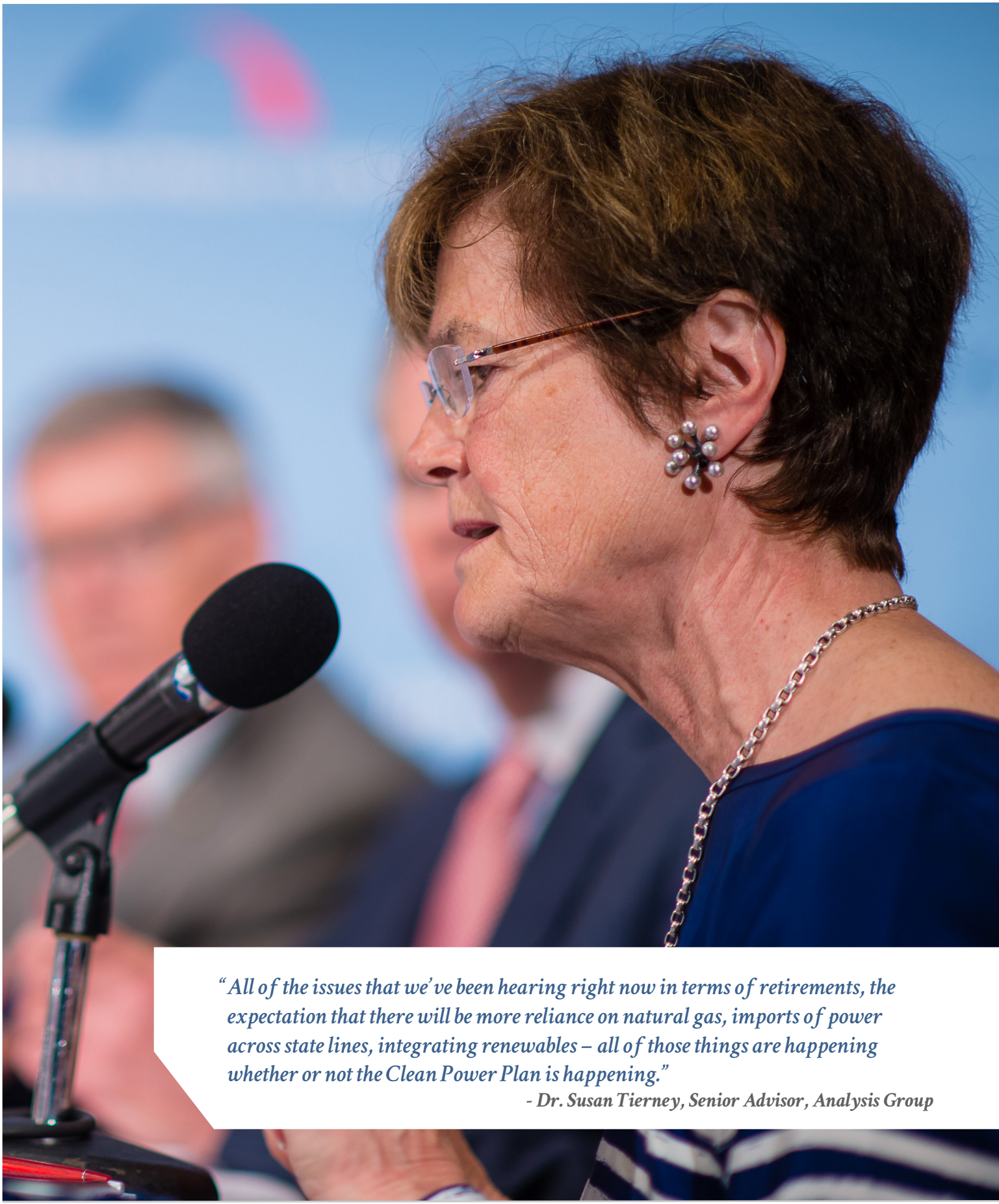
"Reliability is too critical an issue to … not be prepared and not have a contingency plan."
William Spence, Chairman, President and Chief Executive Officer, PPL Corporation, on behalf of the Edison Electric Institute





"Our goal is to see if in fact we believe it's possible to recommend a process that allows the natural disorder in the world to unfold in a way that keeps the air clean and the lights on."

- Jason Grumet, President, Bipartisan Policy Center



"All of the issues that we've been hearing right now in terms of retirements, the expectation that there will be more reliance on natural gas, imports of power across state lines, integrating renewables – all of those things are happening whether or not the Clean Power Plan is happening."

- Dr. Susan Tierney, Senior Advisor, Analysis Group

Reliability Assessment and Planning May Not be Enough to Address Reliability Issues From Unanticipated Events

Participants generally agreed that the assessment process before implementation of the Clean Power Plan should address and remediate most, if not all, reliability concerns. However, panelists representing NERC, NARUC, RTOs/ISOs, utilities, and rural cooperatives indicated that a backup would be prudent to address the tension between compliance and reliability in the case of unanticipated events—for example, the sudden loss of a nuclear plant, natural gas supply disruption, failure of aging infrastructure, or outages caused by extreme weather. Panelists also noted that unforeseen reliability needs in one state might affect another state's compliance. For example, a state that exports power may experience outages, forcing importing states to increase utilization of carbon-intensive generation.

Many entities support the availability of a safety valve that might never be needed but would provide for some form of compliance relief in situations where an entity might otherwise have to choose between meeting a reliability standard and Clean Power Plan compliance. EEI's Spence emphasized that a reliability event linked to the Clean Power Plan could derail the program and the environmental gains it seeks to achieve. And John Novak, representing NRECA, noted: "We're not looking for a waiver. We're looking for a modification to the standard, maybe temporary, maybe with a requirement for offsets so it doesn't bust the bank." Participants discussed the following key points:

- EPA's final rule should contain specific guidance on how potential reliability issues will be addressed.
- Participants noted that a formal process should be established between EPA and FERC to ensure an official transparent role for FERC in the process of addressing potential reliability impacts. A number of participants raised the possibility of a memorandum of understanding between the two agencies that would address their respective roles.
- Participants discussed the possibility of a process where states, RTOs, or individual affected entities could go to EPA in the case where an unforeseen reliability issue threatens compliance. There could then be a consultation between EPA and FERC to assess the issue. Entities seeking relief would be required to demonstrate the reliability issue following transparent criteria that are identified in advance. Commissioner James Gardner, representing NARUC, suggested that requiring such demonstration should be manageable, noting that the RSV provided under EPA's Mercury and Air Toxics Standards rule, has been utilized in Kentucky to provide additional compliance time for certain units, with supporting evidence provided by PJM, MISO, and other balancing authorities. Glazer, representing the ISO/RTO Council, noted that FERC would need to avoid using traditional litigation processes in order to be able to consult effectively with EPA and other relevant entities during the process.
- After consulting with FERC, EPA would make a decision on whether to permit any relief from compliance and what form this relief would take. Both Tierney and Moore emphasized that any relief provided should have some requirement to preserve environmental integrity, such as by offsetting any additional emissions. In addition to the environmental concerns, Tierney cautioned that a process that allows for cost-free compliance extensions could reduce the incentive for proper planning and inhibit the development of carbon markets that would help to alleviate tension between compliance and reliability.
- It is possible that, in the absence of an RSV, existing Federal Power Act authorities might enable FERC or Department of Energy (DOE) intervention in the event of reliability challenges, though it is not clear that these authorities can be used to provide relief from EPA's compliance obligations. Mike Dowd, from the Virginia Department of Environmental Quality, referenced section 202 of the Federal Power Act, which provides authority to the secretary of energy to require certain facilities to operate in the event of an emergency—potentially providing the "ultimate safety valve." Section 215(i) of the Federal Power Act—which allows FERC to intervene if state actions are inconsistent with a reliability standard—was also raised as a potential avenue for FERC to address reliability impacts.

Next Steps and FERC's Recent Letter to EPA

Commissioner Honorable closed the event by indicating that FERC would consider all of the ideas raised by the panelists, and provide input to EPA soon. She suggested that the group reconvene once EPA issues its final rule.

On May 15, 2015, FERC submitted a letter to EPA Acting Assistant Administrator Janet McCabe, outlining the role that FERC could play in supporting a reliability assessment process, or in evaluating petitions to EPA under a reliability safety valve. The letter emphasized that EPA should ensure that affected entities have enough time and flexibility to take actions needed to ensure reliability.

In the context of reliability assessment, FERC emphasized that states retain authority over local distribution and integrated resource planning and that any role for FERC "must be crafted carefully to respect the authority and responsibility of states." FERC suggested that existing reliability assessment and planning processes should be used to review state plans for potential reliability issues, but noted that the commission could review analyses, suggest or request additional analyses, and perform analysis in limited cases upon request by EPA (including providing input on state plan impacts), states, or others. FERC also noted that it could convene technical conferences, require presentations at FERC meetings, and participate in other forms of outreach. FERC emphasized that its input should "focus on the regional impacts of Clean Power Plan compliance."

In the context of the RSV, FERC indicated that it could play a "narrow role," which could include reviewing a petitioner's claims that conditions on the system would lead to reliability standards violations or reserve margin deficiencies if the petitioner's Clean Power Plan compliance obligation were not adjusted. Similarly, the commission could evaluate whether the mitigation proposed by the petitioner would resolve their reliability concerns. The letter notes that FERC would not opine on "other issues that EPA should consider, such as whether an applicant has made sufficient efforts to resolve the Reliability Standard violation without deviating from approved emissions requirements or compliance time lines."

For media inquiries, please contact: **Jordan LaPier | jlapier@bipartisanadvocacy.org**

End Notes

[1] See, for example, the ISO/RTO Council's comments to EPA (also submitted to FERC during their technical conferences), which discuss how an RSV might be implemented. Available at: http://www.isorto.org/Documents/Report/20150219_%20IRCStatementtoFERCAddressingElectricReliabilityConsiderationsofEPAProposedCleanPowerPlan.pdf.

[2] Available at: https://www.ferc.gov/media/headlines/2015/ferc-letter-epa.pdf.