

OVERSIGHT OF THE FEDERAL ENERGY REGULATORY COMMISSION

HEARING BEFORE THE SUBCOMMITTEE ON ENERGY AND POWER OF THE COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED FOURTEENTH CONGRESS FIRST SESSION

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OVERSIGHT OF THE FEDERAL ENERGY REGULATORY COMMISSION

TUESDAY, DECEMBER 1, 2015

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND POWER,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:00 a.m., in room 2123, Rayburn House Office Building, Hon. Ed Whitfield (chairman of the subcommittee) presiding.

Present: Representatives Whitfield, Olson, Shimkus, Pitts, Latta, Harper, McKinley, Pompeo, Kinzinger, Griffith, Johnson, Long, Ellmers, Flores, Mullin, Hudson, Upton (ex officio), McNerney, Tonko, Green, Capps, Doyle, Castor, Sarbanes, Welch, Yarmuth, Loeb sack, and Pallone (ex officio).

Also Present: Representative Kennedy.

Staff Present: Nick Abraham, Legislative Associate, Energy and Power; Will Batson, Legislative Clerk, Energy and Power, Environment and the Economy; Leighton Brown, Press Assistant; Allison Busbee, Policy Coordinator, Energy & Power; Patrick Currier, Senior Counsel, Energy & Power; Tom Hassenboehler, Chief Counsel, Energy & Power; A.T. Johnston, Senior Policy Advisor; David McCarthy, Chief Counsel, Environment and the Economy; Tim Pataki, Professional Staff Member; Chris Sarley, Policy Coordinator, Environment and the Economy; Dan Schneider, Press Secretary; Christine Brennan, Minority Press Secretary; Jeff Carroll, Minority Staff Director; Timia Crisp, AAAS Fellow; Rick Kessler, Minority Senior Advisor and Staff Director, Energy and Environment; and Tim Robinson, Minority Chief Counsel.

OPENING STATEMENT OF HON. ED WHITFIELD, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF KENTUCKY

Mr. WHITFIELD. I would like to call the hearing to order this morning and welcome everyone. Today, we are going to have an oversight of the Federal Energy Regulatory Commission, and I want to welcome all the commissioners and chairmen. We appreciate the four of you being with us. We had one vacancy over there, but we appreciate your time. We look forward to the dialogue with you on some very important issues. At this time, I recognize myself for a 5-minute opening statement.

America's energy policy is changing rapidly, changing not only from the dramatic increases in domestic energy supplies, but also from the unprecedented Federal regulatory burdens, and a number

of other emerging threats. And FERC's responsibility places it right at the very center of these changes.

The rapid rise in domestic natural gas production and the increased reliance on it for electricity generation has created many challenges for FERC. For one thing, it has increased the burden on FERC to make timely decisions on many new natural gas pipeline project applications. We see bottlenecks in regions like New England, where high natural gas prices and limited supplies are harming consumers, destroying jobs and threatening wintertime electric reliability, even though natural gas in nearby Pennsylvania is plentiful and affordable.

FERC also plays a central role in the approval of LNG export facilities, which hold the potential to create jobs at home and help our allies abroad. In fact, on a regular basis, we have representatives of foreign European countries coming and asking for LNG exports. Both the substance and the timeline of FERC's review process for such projects have, justifiably, come under review. Challenges also come from the actions of other Federal agencies, and particularly, EPA. EPA's Clean Power Plan and other regulations pose a significant threat to fuel diversity and electric reliability.

The loss of existing coal-fired capacity, as a consequence of new rules, is already a cause for concern, and the number of retirements will only grow in the years ahead. At the same time, EPA has all but banned the options of new coal-fired generation, despite its proven reliability, and it even places constraints on natural gas in favor of intermittent renewables like wind and solar.

These and other actions by EPA and their impact on electric reliability and affordability, also raise questions about the working relationship between EPA and FERC. EPA has leap-frogged beyond FERC and granted itself authority over electricity well beyond anything set out in the Federal Power Act. There are valid concerns that FERC is allowing itself to become a bystander as EPA increasingly dominates the electricity sector, and does so in ways that serve to exacerbate the very problem FERC is supposed to protect consumers against.

Grid security is another growing concern in FERC's jurisdiction. The electricity system faces all the traditional risk from severe weather and earthquakes and the like, but we also see emerging threats from things like cyber and EMP attacks. FERC's role in ensuring the security of the grid is more important than ever.

So in some respects, the energy situation in America is better than it has been in decades. But nonetheless, there are challenges in the years ahead, and FERC must play a critical role and meet its responsibilities as we deal with these transitions that we face today.

So I really look forward to this opportunity to have a dialogue with the commissioners, to get their views on these important issues, and let you hear some of the concerns that we have.

[The prepared statement of Mr. Whitfield follows:]

PREPARED STATEMENT OF HON. ED WHITFIELD

As we all know, America's energy picture is rapidly changing, not only from the dramatic increases in domestic energy supplies but also from the unprecedented fed-

eral regulatory burdens and a number of other emerging threats. The work that FERC does often places it at the center of this change.

For example, the rapid rise in domestic natural gas production and the increased reliance on it for electricity generation has created many challenges for FERC. For one thing, it has increased the burden on FERC to make timely decisions on many new natural gas pipeline project applications. We see bottlenecks in regions like New England, where high natural gas prices and limited supplies are harming consumers, destroying jobs, and threatening wintertime electric reliability, even though natural gas in nearby Pennsylvania is plentiful and affordable. FERC also plays a central role in the approval of LNG export facilities, which hold the potential to create jobs at home and help our allies abroad. Both the substance and the timelines of FERC's review process for such projects has justifiably come under review.

Challenges also come from the actions of other federal agencies, and particularly EPA. EPA's Clean Power Plan and other regulations pose a serious threat to fuel diversity and electric reliability. The loss of existing coal-fired capacity as a consequence of new rules is already cause for concern, and the number of retirements will only grow in the years ahead. At the same time, EPA has all but banned the option of new coal-fired generation, despite its proven reliability, and has even placed constraints on natural gas in favor of intermittent renewables like wind and solar.

These and other actions by EPA and their impact on electric reliability and affordability also raises questions about the working relationship between EPA and FERC. EPA has leapfrogged beyond FERC and granted itself authority over electricity well beyond anything in the Federal Power Act. There are valid concerns that FERC is allowing itself to become a helpless bystander as EPA increasingly dominates the electricity sector and does so in ways that serve to exacerbate the very problems FERC is supposed to protect consumers against.

Grid security is another growing concern in FERC's jurisdiction. The electricity system faces all the traditional risks from severe weather and earthquakes and the like, but we also see emerging threats from things like cyber and EMP attacks. FERC's role in ensuring the security of the grid is more important than ever.

In some respects America's energy situation is better than it has been in decades, but nonetheless there are challenges in the years ahead and a critical role for FERC in dealing with them.

Mr. WHITFIELD. At this time, I would like to recognize the gentleman from California, Mr. McNerney, for 5 minute opening statement.

OPENING STATEMENT OF HON. JERRY MCNERNEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. MCNERNEY. I thank the chairman. This is an important hearing and I am glad that we have all four of our commissioners available here this morning. Our Nation's electric grid touches all of our lives. FERC's jurisdiction, your jurisdiction, and the cooperation with the States and the stakeholders throughout the transmission and distribution system make it critically important.

The grid, from both the technological and resource-mix standpoint, is evolving, and it is ours and your responsibility to ensure that the public and private sectors are prepared and working together while maintaining reliability, resiliency, and affordability.

And this is happening at a time when some feel that our electrical grid is our Nation's most vulnerable section of infrastructure. So we have challenges in front of us. Preparing for our future will require significant investments in our energy industry infrastructure. Utilities are often the ones leading the way on these efforts, but it will require cooperation among all stakeholders to maintain and improve our current energy and electrical systems. The needs are clear: Reduce carbon emissions; increase efficiency; afford-

ability, affordable prices for consumers; job creation, reliability; and resilience.

So you know that when you flip on the lights, they will turn on. The shift to more natural gas, as well as renewables in places such as California, has forced utilities and consumers to rethink how they manage electricity. And electricity continues to shift to be consumer-driven with things like demand response, microgrids and the Internet of things. Well, these are positive developments, but ones that are still relatively new and will need continued oversight from FERC and Congress to analyze what works and what doesn't work. There is no shortage of challenges facing our Nation's energy system.

We will hear from the commissioners today. FERC is facing a daunting task with a seemingly endless increase in the number of your requests. Nearly 2 dozen LNG export facility requests now are under FERC consideration; approximately 500 hydropower licenses in the coming years; the need for timely investments in infrastructure; and the impacts of these and the increased physical and cyber threats to the electric grid are tremendous. FERC will be at the forefront of each of these, reducing carbon emissions while protecting reliability, increasing physical and cyber resilience while managing cost for consumers; fostering development and implementation of policies and technology that supports all grid stakeholders.

I look forward to your testimony, and I appreciate you taking time to be with us today. And with that, Mr. Chairman, I yield back.

Mr. WHITFIELD. Thank you very much. At this time, I would like to recognize the chairman of the full committee, Mr. Upton of Michigan, for 5 minutes.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. Thank you, Mr. Chairman.

Quite a few energy-related issues in the news today fall under FERC's jurisdiction. So it is important and very timely for this subcommittee to hold this oversight hearing.

FERC plays a key role regulating the transmission, reliability and wholesale sale of electricity and interstate commerce, the transmission and sale of natural gas for resale in the interstate commerce, and the transportation of oil by pipeline in interstate commerce as well.

FERC is responsible for the approval of interstate natural gas pipelines, LNG export facilities, and licensing of non-Federal hydropower projects. America's growing energy abundance and its growing role as a global energy superpower has led to more infrastructure projects being proposed.

However, there are problems with the timeliness of FERC approvals. If left unaddressed, these delays may cost us lots of jobs, raise energy prices, and compromise reliability. H.R. 8, the North American Energy Security and Infrastructure Act, which will be considered by the full House tonight and tomorrow and Thursday, contains provisions that help expedite the job-creating energy infrastructure projects. First, FERC also has the responsibility related

to the security of the Nation's electric grid, including physical and cybersecurity threats, geomagnetic disturbances, electromagnetic pulse and severe weather. H.R. 8 also includes provisions that seek to strengthen our ability to prevent these risks, and minimize the impact, when, in fact, they occur.

FERC and its predecessor agencies have addressed many issues since 1920. But over that span, it has never faced a rival Federal agency setting policy at odds with FERC's core mission. In recent years, the EPA has taken on such a role, especially related to electricity. In particular, EPA's so-called Clean Power Plan, which mirrors the regulatory cap and trade scheme that failed to pass in the Democratically-controlled Congress in 2010, places severe constraints on coal-fired generation in favor of renewables, jeopardizing reliability and giving priority to greenhouse gas reductions over cost considerations in setting the generation mix. Whether FERC can effectively fight back against EPA's agenda when it conflicts with FERC's responsibilities is a matter of considerable debate.

There are serious implications for a State like mine, Michigan, where affordable and reliable electricity and sufficient supplies of natural gas are vital to making it through the long and severe winters. Michigan and other industrial States also need affordable and reliable energy for manufacturers to remain globally competitive.

So I look forward to this important debate on FERC's current and future role. A better functioning FERC matters to jobs and affordable energy. And I yield back the balance of my time.

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Quite a few energy-related issues in the news today fall under the Federal Energy Regulatory Commission's (FERC) jurisdiction, so it is important and very timely for the Energy and Power Subcommittee to hold this oversight hearing. FERC plays a key role regulating the transmission, reliability, and wholesale sale of electricity in interstate commerce, the transmission and sale of natural gas for resale in interstate commerce, and the transportation of oil by pipeline in interstate commerce.

FERC is also responsible for the approval of interstate natural gas pipelines, LNG export facilities, and licensing of non-federal hydropower projects. America's growing energy abundance and its growing role as a global energy superpower has led to more infrastructure projects being proposed. However, there are problems with the timeliness of FERC approvals. If left unaddressed, these delays may cost jobs, raise energy prices, and compromise reliability. H.R. 8, the North American Energy Security and Infrastructure Act, which will be considered by the full House later this week, contains provisions to help expedite these job-creating energy infrastructure projects.

FERC also has responsibilities related to the security of the nation's electric grid, including physical and cybersecurity threats, geomagnetic disturbances, electromagnetic pulse, and severe weather. H.R. 8 also includes provisions that seek to strengthen our ability to prevent these risks and minimize the impact when they do occur.

FERC and its predecessor agencies have addressed many issues since 1920, but over that span it has never faced a rival federal agency setting policy at odds with FERC's core mission. But in recent years, the EPA has taken on such a role, especially related to electricity. In particular, EPA's so-called Clean Power Plan, which mirrors the regulatory cap-and-trade scheme that failed to pass a democratically-controlled Congress in 2010, places severe constraints on coal-fired generation in favor of renewables, jeopardizing reliability and giving priority to greenhouse gas reductions over cost considerations in setting the generation mix. Whether FERC can effectively fight back against EPA's agenda when it conflicts with FERC's responsibilities is a matter of considerable debate.

There are serious implications for a state like my home state of Michigan, where affordable and reliable electricity and sufficient supplies of natural gas are vital to making it through the long and severe winters. Michigan and other industrial states also need affordable and reliable energy for our manufacturers to remain globally competitive. I look forward to this important debate on FERC's current and future role. A better functioning FERC matters to jobs and affordable energy.

Mr. WHITFIELD. The gentleman yields back. At this time, the chair recognizes the gentleman from New Jersey, Mr. Pallone, for 5 minutes.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Chairman Whitfield. I want to welcome the commissioners, particularly Chairman Bay and Commissioner Honorable, who are before us for the first time in their current roles. Frankly, this hearing is long overdue. I believe that we are in a time of great transition and uncertainty with regard to those aspects of our Nation's energy policy overseen by FERC.

Ten years ago, we enacted the Energy Policy Act of 2005, and that was quickly followed by the Energy Independence and Security Act of 2007. Both of these laws made significant changes to our Nation's energy policies, particularly in the areas regulated by FERC.

We continue to feel the reverberation of those changes today, and the commissioners are, in many ways, front and center in having to wrestle with the forces unleashed by those laws. In particular, we have seen tremendous expansion in the supply transmission and use of natural gas as prices have dropped. We have also seen a drop in electricity prices as a move towards market has spurred competition and innovation in many regions of the country.

The change is never easy, and with it comes questions, problems and new needs. The rise of cheap gas, falling renewable energy prices, and tighter competition has really called into question old assumptions and boundary lines. It is getting close to the time when we will need to consider fundamental questions about what areas are best suited for the State to regulate and what should be handled by FERC.

We also need to begin thinking about the diversity of our electricity regulations system and whether or not we need to have more certainty and conformity rather than the current patchwork of regulated and deregulated States and regional wholesale markets that might benefit from some common ground rules.

Are these markets providing real benefits to residential and other consumers? Are they setting the right price signals to developers of generation resources? What is the role and efficiency and demand response in the wholesale market? How do we prevent bad actors from manipulating the market while ensuring the rules are not overly burdensome for those suppliers who play by the rules.

These are but a few of the questions before us and before the Commission, and the Commission still has to grapple with similar questions regarding the gas and markets and pipeline siting, as well as dam safety, hydroelectric licensing, oil pipeline pricing, and so many other issues.

I know that we will hear, we already have heard rhetoric about EPA's recent rules on carbon, and not just on the floor this afternoon. The truth is that the grid is reliable and no clean air regulation has ever resulted in the loss of reliability. The system is reliable and it is flexible and will adapt to the new carbon rules, just as it has to every previous action taken under the Clean Air Act.

So I hope that today's hearing will move on from the tired topic and worn out rhetoric that we continue to hear from the other side of the aisle. It is time to start having a real dialogue about the areas FERC regulates, about the future of our energy markets, natural gas pipeline systems, and hydroelectric resources. If we fail to engage soon seriously and thoughtfully, we risk harming consumers, the economy and the environment.

Thank you, Mr. Chairman, I yield back.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

I want to thank Chairman Whitfield for holding today's oversight hearing on the Federal Energy Regulatory Commission (FERC). I also want to welcome the Commissioners, particularly Chairman Bay and Commissioner Honorable who are before us for the first time in their current roles.

Frankly, this hearing is long overdue. I believe that we are in a time of great transition and uncertainty with regard to those aspects of our nation's energy policy overseen by FERC.

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We continue to feel the reverberation of those changes today and the Commissioners are, in many ways, front and center in having to wrestle with the forces unleashed by those laws.

In particular, we have seen tremendous expansion in the supply, transmission and use of natural gas as prices have dropped. We've also seen a drop in electricity prices as the move toward markets has spurred competition and innovation in many regions of the country.

But change is never easy and with it comes questions, problems and new needs. The rise of cheap gas, falling renewable energy prices and tighter competition has really called into question old assumptions and boundary lines. It is getting closer to the time when we will need to consider fundamental questions about what areas are best suited for the state to regulate and what should be handled by FERC. We also need to begin thinking about the diversity of our electricity regulation system and whether or not we need to have more certainty and conformity rather than the current patchwork of regulated and deregulated states and regional wholesale markets that might benefit from some common ground rules. Are these markets providing real benefits to residential and other consumers? Are they sending the right price signals to developers of generation resources? What is the role of efficiency and demand response in the wholesale market? How do we prevent bad actors from manipulating the market while ensuring the rules are not overly burdensome for those suppliers who play by the rules?

These are but a few of the questions before us and before the Commission. And, the Commission still has to grapple with similar questions regarding the gas markets and pipeline siting, as well as dam safety, hydroelectric licensing, oil pipeline pricing and so many other issues.

I know that we will hear rhetoric today about EPA's recent rules on carbon—and not just on the floor this afternoon. But the truth is that the grid is reliable and no Clean Air Act regulation has ever resulted in a loss of reliability. The system is reliable and it is flexible and it will adapt to the new carbon rules just as it has to every previous action taken under the Clean Air Act.

I hope that today's hearing will move on from that tired topic and worn out rhetoric. It's time to start having a real dialogue about the areas FERC regulates, about the future of our energy markets, natural gas pipeline systems, and hydroelectric resources. If we fail to engage soon, seriously and thoughtfully, we risk harming consumers, the economy and the environment.

Thank you.

Mr. WHITFIELD. The gentleman yields back. And that concludes our opening statements, so we will get right to our panel. And I am going to introduce each one of you right before you give your opening statements.

So we will start this morning with the Chairman, the Honorable Norman Bay, and thank you very much for being with us Mr. Bay. We look forward to your testimony. You are recognized for 5 minutes.

STATEMENTS OF HON. NORMAN C. BAY, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION; HON. CHERYL A. LA-FLEUR, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION; HON. TONY CLARK, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION; AND HON. COLETTE D. HONORABLE, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION.

STATEMENT OF HON. NORMAN C. BAY

Mr. BAY. Thank you. Good morning, Chairman Whitfield, Ranking Member McNerney and members of the committee. Thank you for the opportunity to appear before you to discuss the work of the Federal Energy Regulatory Commission. My testimony will discuss my priorities in light of the change that is happening in the energy space, a change a number of you have alluded to this morning.

Underpinning each of these priorities is a belief that in approaching matters that come before the Commission, it is essential to be fair, balanced, and pragmatic to decide cases on the merits based on the facts and the law and to be consensus-oriented.

My first priority is to focus on the fundamentals in the competitive markets, to continue to look for ways to improve the efficiency of the markets, and to deliver greater value to consumers. The Commission continues to work to promote greater efficiency, competition and transparency in the wholesale markets, including and reviewing the capacity markets and looking at price formation in the energy markets.

Second, the reliability of the grid is a core responsibility for the Commission. This encompasses not only the everyday responsibility over reliability standards, including physical security and cybersecurity, but it also includes gas-electric coordination issues. While the Commission's reliability authority is limited, it will continue to use what authority it has in a conscientious manner. In my view, it is important for utilities to push beyond the requirements of the standards to implement best practices on cybersecurity.

Third, I believe that infrastructure continues to be an important issue at the Commission. Right now, there is a need for more infrastructure in terms of both gas facilities and electric transmission, and FERC plays a critical role in permitting and incenting the development of that infrastructure.

Finally, to accomplish my priorities, I will need to focus on the human capital at the Commission. The work of the Commission cannot be done without its outstanding staff. And it is important to me that the Commission focus on retaining our current highly

qualified employees, ensure knowledge transfer from those employees who do retire, and recruit highly-skilled people to replace any departures while maintaining our status as one of the very best places to work in government.

I am very proud of the fact that the recent Federal employee viewpoint survey ranked FERC one of the very best agencies in government. We were third overall for employee satisfaction among large government agencies. We were fourth in terms of employee engagement. The challenge is that in the next few years, 30 percent of our workforce is eligible to retire.

To meet all of these priorities, it is essential to use the tools that Congress has given the Commission. I look forward to working with you in the future on my priorities, and would be happy to answer any questions that you have. Thank you.

[The prepared statement of Mr. Bay follows:]

**Testimony of Norman C. Bay
Chairman
Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives
December 1, 2015**

Summary

Chairman Whitfield, Ranking Member Rush, and Members of the Committee:

Thank you for the opportunity to appear before you to discuss the work of the Federal Energy Regulatory Commission (FERC or Commission). My testimony will discuss my priorities in light of the change happening in the energy space. Underpinning each of these priorities is a belief that, in approaching matters that come before the Commission, it is essential to be fair, balanced, and pragmatic; to decide cases on the merits, based on the facts and the law; and to be consensus-oriented.

My first priority is to focus on the fundamentals in the competitive markets to continue to look for ways to improve the efficiency of the markets and to deliver greater value to consumers. The Commission continues to work to promote greater efficiency, competition, and transparency in the wholesale markets, including in reviewing the competitive markets and looking at price formation in the energy markets.

Second, the reliability of the grid is a primary responsibility for the Commission. This encompasses not only the everyday responsibility over Reliability Standards, including physical security and cybersecurity, but it also includes gas-electric coordination issues. While the Commission's reliability authority is limited, it will continue to use what authority it has in a conscientious manner. In my view, it is important for utilities to push beyond the requirements of the standards to implement best practices on cybersecurity.

Third, I believe that infrastructure continues to be an important issue at the Commission. Right now, there is a need for more infrastructure, in terms of both gas facilities and electric transmission, and FERC plays a critical role in permitting and incenting the development of that infrastructure.

Finally, to accomplish my priorities, I will need to focus on human capital at the Commission. The work of the Commission cannot be done without its dedicated staff, and it is important to me that the Commission focus on retaining our current highly qualified employees, ensure knowledge transfer from those employees who do retire, and recruit highly skilled people to replace any departures, while maintaining our status as one of the very best places to work in government.

To meet all of those priorities, it will be essential to use the tools Congress has given the Commission. I look forward to working with you in the future on my priorities and would be happy to answer any questions you may have.

**Testimony of Norman C. Bay
Chairman
Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives
December 1, 2015**

Introduction

Chairman Whitfield, Ranking Member Rush, and Members of the Subcommittee, thank you for the opportunity to appear before you to discuss the work of the Federal Energy Regulatory Commission (FERC or Commission). My name is Norman Bay, and I am the Chairman of the Commission. My colleagues and I appreciate the opportunity to discuss the work of the Commission, particularly in this time of great change in the energy space.

My testimony will outline my priorities. Commissioner Cheryl A. LaFleur will address reliability and the competitive markets. Commissioner Tony Clark will focus on infrastructure. And Commissioner Colette D. Honorable will discuss a number of issues, including FERC's role with respect to the EPA's Clean Power Plan.

There are at least several major trends or developments driving change in the energy space. First, the shale revolution has resulted in an abundant and historically low priced gas supply. Second, organized markets are expanding, and the Nation is seeing a period of low load growth and increased energy efficiency, which impact the markets the Commission oversees. Third, more renewables and distributed generation are being integrated into the energy system. Fourth, state and federal public policies are affecting the energy industry. Finally, the energy industry is seeing a period of increased technological innovation.

My testimony will discuss my priorities given the change that is happening. Underpinning each of the priorities is a belief that, in approaching matters that come before the

Commission, it is essential to be fair, balanced, and pragmatic; to decide cases on the merits, based on the facts and the law; and to be consensus-oriented.

My first priority is to focus on the fundamentals in the competitive markets. It will be important to continue to look for ways to improve the efficiency of the markets and to deliver greater value to consumers. Second, the reliability of the grid is a primary responsibility for the Commission. This encompasses not only the everyday responsibility over Reliability Standards, including physical security and cybersecurity, but it also includes gas-electric coordination issues. Third, I believe that infrastructure continues to be an important issue at the Commission. Right now, there is a need for more infrastructure, in terms of both gas facilities and electric transmission, and FERC plays a critical role in permitting and incenting the development of that infrastructure. Finally, to accomplish my priorities, I will need to focus on human capital at the Commission. The work of the Commission cannot be done without its dedicated staff, and it is critical to recruit and retain our staff so that the Commission maintains its status as one of the very best places to work in the government.

Markets

On markets, the Commission continues to work with each regional transmission organization (RTO) and independent system operator (ISO) to promote greater efficiency, competition, and transparency. As an example, the Commission's recent price formation proposal seeks to do two things: (1) to align real time settlement and dispatch intervals; and (2) to implement shortage pricing for shortage events. These measures should improve efficiency and transparency in the markets. The premise behind the proposal is very simple: resources should be compensated for the value they provide when they provide it. The proposed action should reduce uplift and promote greater price transparency, which informs decisions to build or

maintain resources, especially flexible resources. It should also promote the more efficient use of resources. The Commission is currently evaluating the comments to that proposal. In addition, the Commission recently issued an order directing each RTO and ISO to submit reports on five price formation issues in its energy and ancillary services market. Identifying best practices for these five areas should provide incentives to maintain reliability, to facilitate accurate and transparent pricing, to reduce uplift, and for market participants to operate consistent with dispatch signals.

The Commission has also signaled that it expects to address other price formation issues, including offer price caps, mitigation, uplift transparency, and uplift drivers. I think this is an example of the way in which the Commission seeks to achieve incremental progress, improving its markets, and building upon what it has done in the past. Commissioner LaFleur will also discuss the Commission's action with respect to the competitive markets and reliability.

Reliability

Bulk-power system reliability is a fundamental responsibility of the Commission. It is important to note that FERC's jurisdiction and reliability authority under section 215 of the Federal Power Act (FPA) is limited to the "bulk power system," as defined in the FPA, which excludes local distribution systems, as well as Alaska and Hawaii. Under its section 215 authority, FERC cannot author or modify reliability standards, but must depend upon the Electric Reliability Organization (or ERO) to perform this task. While the Commission's authority is limited, it will continue to exercise the authority it has in a conscientious manner. The Commission and the North American Electric Reliability Corporation (NERC), the Commission-certified ERO, have made steady progress in addressing both the day-to-day nuts-and-bolts

activities necessary to keep the lights on, like tree trimming and relay setting coordination, and emerging threats, like cybersecurity, geomagnetic disturbances (GMD), and physical security. However, we will need to continue to monitor challenges with respect to day-to-day issues, building on the progress that FERC and NERC have made in setting priorities, developing and implementing reliability standards, mitigating compliance violations, and disseminating lessons learned. With respect to emerging issues, FERC has issued or directed new or modified reliability standards for cybersecurity, GMD events caused by solar storms, and physically securing critical grid infrastructure.

While we have moved forward with respect to cybersecurity, bulk-power system cybersecurity remains a top concern of mine. Compliance with the NERC Critical Infrastructure Protection standards is a good foundation to help ensure a secure grid. However, compliance with the Critical Infrastructure Protection standards will not, by itself, necessarily protect against every potential threat. In my view, it is important for utilities to push beyond the requirements of the standards to implement best practices. Moreover, a key factor in mitigating the risks posed by credible threats is accurate and timely information sharing between government and industry on the threats and vulnerabilities that could disrupt the reliable operation of the bulk-power system. This information sharing should also include any actionable steps that could be taken to minimize potential risks. It is important that government be able to share such threat, vulnerability, and mitigation information with industry without making such information available to potential wrongdoers. It is also vital that resiliency measures be in place to promote timely recovery and restoration of the bulk-power system in the event of a major incident.

The Commission has also recognized the need for greater reliability with respect to gas-electric coordination, cybersecurity, and physical security. On gas-electric coordination, the

Commission has adopted a series of changes to improve communications between interstate natural gas pipelines and electric transmission operators to promote reliable service and operational planning and to revise natural gas pipeline schedule practices to better ensure the reliable and efficient operations of our interstate natural gas pipelines and our electricity systems. The Commission also required the RTOs and ISOs to modify their day-ahead markets to coordinate them with the natural gas pipelines' scheduling practices.

Finally, as Commissioner Honorable will discuss further, the Commission has also made clear that it intends to remain engaged on any reliability issues arising from implementation of EPA's Clean Power Plan. FERC, EPA, and the Department of Energy (DOE) agreed to meet on a quarterly basis, and we are committed to working with EPA, DOE, states, the RTOs and ISOs, NERC, the regional entities, and industry to help maintain reliability. While it will take a lot of hard work, communication, and collaboration, I believe that potential reliability concerns can be addressed.

Infrastructure

FERC plays a critical role with respect to hydropower, natural gas, and electric infrastructure, and Commissioner Clark's testimony will highlight FERC's work on infrastructure in greater detail. Without prejudging any matter before the Commission, I believe that there is an important need for additional natural gas pipeline and electric transmission in different parts of the United States. With respect to electric transmission, the Commission has used its authority to grant incentives for transmission development under section 219 of the FPA and continues its work on Order No. 1000, which promotes regional and interregional planning and cost allocation. On gas infrastructure, the Commission is committed to reviewing pending

licenses, permits, and applications in a thorough, professional, and timely manner. This has resulted in the certification of a number of major gas projects. On hydropower, the Commission continues to implement the Hydropower Regulatory Efficiency Act of 2013 by processing conduit exemptions and preliminary permit extensions. In my view, it is important for FERC to prioritize infrastructure, because infrastructure can enhance reliability and resiliency, provide economic benefit by reducing congestion and making markets more competitive, and further state and federal public policies.

Human Capital

To accomplish any of my goals, I will need to rely on the Commission's greatest strength: its people. I am honored and humbled to work with my colleagues on the Commission and with staff. Our staff has a critical mission – to help ensure efficient, reliable, and sustainable energy for consumers – and I deeply appreciate their hard work, dedication, and commitment to furthering the public interest. I am proud to say that on the 2015 Federal Employee Viewpoint Survey, FERC ranked third out of 37 agencies for employee satisfaction and fourth for employee engagement. However, thirty percent of the Commission's work force is eligible to retire within the next few years. It is important to me that the Commission focus on retaining our current outstanding employees, ensure knowledge transfer from employees who do retire, and recruit highly skilled people to replace any departures. And we must do this in a way that maintains our status as one of the best places to work in government.

Conclusion

In conclusion, in this time of great change in the energy space, my priorities will be to use the tools that Congress has given the Commission to focus on the fundamentals of the energy markets, bulk-power system reliability, energy infrastructure, and human capital. Thank you for

inviting me to testify today. I look forward to working with you in the future on these issues and would be happy to answer any questions you may have.

Mr. WHITFIELD. Thank you very much, Chairman Bay. Our next witness is the Honorable Cheryl LaFleur. We are delighted you are back with us, Ms. LaFleur, and look forward to your testimony. You are recognized for 5 minutes.

STATEMENT OF HON. CHERYL A. LAFLEUR

Ms. LAFLEUR. Well, thank you very much, Chairman Whitfield, Congressman McNerney, and members of the subcommittee. I am Cheryl LaFleur, I have been on the Commission since 2010; appeared before this committee several times, and was also honored to be chairman from November 2013 to April 2015. I appreciate your holding this hearing and the opportunity to testify.

Since joining the Commission, my top priority has been reliability, focused on the reliability of the Nation's electric grid. And I am going to devote my comments this morning to two aspects of our work on reliability, the reliability standards, and the competitive market.

The Commission oversees the work of NERC, the North American Electric Reliability Corporation, in developing and implementing mandatory reliability standards for the bulk electric system. And I know the committee is aware this is one of the only pieces of critical infrastructure subject to mandatory standards, thanks to Congress' work in 2005. The standards range from nuts-and-bolts rule to keep the lights on, and more forward-looking standards on emerging issues. And on the emerging issues, in particular, we have worked hard to try to put in place meaningful cost-effective protections, even though things are changing and we know our knowledge is imperfect.

In March of last year, the Commission directed NERC to develop physical security standards for critical facilities. Those done, approved in November and are now in place and being implemented.

Since the beginning of our authority, we have worked on cybersecurity, a growing challenge that was recognized specifically by Congress in the Energy Policy Act. In late 2013, we approved a fifth generation of cybersecurity that requires that all cyber assets on the bulk electric system receive a level of protection commensurate with their impact on the system.

Also in 2013, we directed NERC to develop standards to address field magnetic disturbances caused by solar storms. This issue is one I have been very personally involved in, given—and I am concerned about given the potentially catastrophic effects that a GMD event could have on the Nation. The first set of standards is already in place, it calls for operating procedures: What happens if a storm happens? What kind of immediate steps do you take?

What we are working on right now is a more comprehensive set of standards that would require transmission owners to put in place mitigation to prepare for, if a GMD event happened, to limit its effect on the bulk electric system, and those are pending right now.

Secondly, I want to talk about wholesale electric markets, because they also relate to reliability because that is what they are for, to ensure reliability at just and reasonable rates. Two-thirds of the Nation are served by organized wholesale electric markets, although those markets differ in what kind of products they work on.

The markets have been expanding. In recent years, we have seen huge additions to the mid-continent ISO, the Southwest Power Pool, and most recently, the California ISO with its Energy Imbalance Market.

The market operators across the Nation are working to adapt market structures to big changes in the Nation's generation resource mix set, several of you have already referred to. These changes are being driven primarily by the increased use of domestic natural gas, the growth of renewable generation and demand side technologies, and new environmental requirements, especially the Mercury and Air Toxic Standards, and the Clean Power Plan.

When so much is changing, and in many places we have a need for new investment, it is particularly important that markets send accurate price signals, both to existing resources, so they can stay in place if needed, and new resources where they are needed. We have been focused very hard on making sure the markets do just that. In the last year and a half, we approved capacity market changes in the eastern RTOs to help the markets identify and buy resources that will perform at the time when they are both most needed to keep the lights on, because the system is under stress, particularly baseload resources.

We are also examining the energy markets, trying to make sure that the energy prices include all the things it takes to keep the lights on so they send accurate and transparent price signals, and we have been working on price formation and have several dockets started in that area.

Finally, we are focused on gas-electric interdependence, due to the increased use the gas for generation. We have put out rules to better harmonize scheduling of the gas and electric markets, and promote communication between them, that are intended to help sustain reliability at a time when the gas system is stressed, both by generation and heating load in the winter.

Finally, I know my colleagues are going to discuss it as well, but we have been engaged with the Environmental Protection Agency for the last several years on the Mercury and Air Toxic Standards, as it goes into place in different regions of the country, and really just starting our work, or we have been involved in it, but the implementing is just starting on the Clean Power Plan, which is something we will be very focused on in the next several years. Thank you and I look forward to your questions.

[The prepared statement of Ms. LaFleur follows:]

**Written Testimony of Cheryl A. LaFleur
Commissioner
Federal Energy Regulatory Commission**

**Before the
Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives**

**Hearing on
Oversight of the Federal Energy Regulatory Commission**

December 1, 2015

Chairman Whitfield, Ranking Member Rush, and members of the Subcommittee:

My name is Cheryl LaFleur, and I am honored to appear before you today as a Commissioner at the Federal Energy Regulatory Commission (FERC or Commission). In addition to serving as a Commissioner, I had the privilege of serving as Acting Chairman and Chairman of the agency from November 2013 through April 2015. Thank you for holding this oversight hearing on the Commission's work, and for the opportunity to testify.

Before joining the Commission in 2010, I spent much of my professional career working to serve electric and natural gas customers in the Northeast, experience that has informed my understanding that all regulatory policies affect real customers. I led energy efficiency programs and other services for business and residential customers, as well as major efforts to improve distribution reliability and safety. I had the experience of working in a vertically-integrated bilateral market as well as in a competitive marketplace served by merchant generation. Since joining FERC, I have tried to bring the breadth of my experiences with customers to further the Commission's responsibility to ensure the reliability of the nation's electric supply at just and reasonable rates. I have also made it a continuing priority to learn about the needs and opportunities of different regions of the country, and to help adapt FERC policy to reflect them.

Because American society and our economy depend upon the reliable supply of electric power, maintaining the reliability of the nation's electric grid has been my top priority since joining the Commission in 2010. In my testimony today, I am going to briefly touch on two core aspects of the Commission's reliability work: (1) our efforts to protect the grid from emerging systemic reliability challenges through the adoption of mandatory reliability standards, and (2) our oversight of wholesale electric markets. My colleague, Commissioner Clark, will address another key component of the Commission's reliability work, our responsibility for authorizing the construction of energy infrastructure.

Supporting Reliability through Mandatory Reliability Standards

The Commission's direct jurisdiction over electric reliability comes from section 215 of the Federal Power Act, which Congress enacted as part of the Energy Policy Act of 2005. Section 215 directs the Commission to certify and work with an independent Electric Reliability Organization (ERO) to develop reliability standards for the Bulk-Power System. In 2006, the Commission certified the North American Electric Reliability Corporation (NERC) as the ERO. Under the unique statutory relationship established by Congress, reliability standards are typically first developed by NERC pursuant to an open and inclusive stakeholder process, and then submitted to the Commission for review and approval. However, section 215 also vests the Commission with authority to direct NERC to develop or modify reliability standards if the Commission determines that a new or modified standard is necessary to address a reliability concern. The Commission has frequently exercised that authority to help ensure the reliability of the grid.

The reliability standards for the bulk electric system range from day-to-day, nuts and bolts requirements to keep the lights on, to forward-looking standards to address emerging issues, like cybersecurity, physical security, and geomagnetic disturbances. The Commission, NERC, and industry have made significant progress in the past several years on the nuts and bolts issues, including promulgation of standards addressing tree trimming, frequency response, under-frequency load shedding, reliability planning criteria, and protection system maintenance and testing, among other areas.

The Commission has also been actively engaged in efforts to address emerging threats to the grid. These issues present different challenges than the day-to-day activities I mentioned, because in many cases we do not have the benefit of decades of experience to draw upon. Instead, because these threats are either constantly evolving or not fully understood, the Commission must work to develop meaningful, cost-effective protections in an environment of rapid change and imperfect knowledge. Despite this difficulty, the Commission has been proactive to identify and address emerging threats.

Reliability and grid security require protection of the physical security of the assets that make up the grid. In March 2014, the Commission exercised its authority under section 215 of the Federal Power Act to direct NERC to develop reliability standards to enhance physical security measures for critical bulk-power system facilities. In November 2014, the Commission approved the proposed reliability standards, which require owners and operators of bulk-power system assets to (1) perform a risk assessment of their systems to identify critical facilities; (2) evaluate potential threats to, and vulnerabilities of, those critical facilities; and (3) develop and implement a security plan to protect against attacks on those facilities. Entities subject to those requirements are now implementing them to protect the grid.

With respect to cybersecurity, the Commission and NERC have continued to refine and improve the Critical Infrastructure Protection Standards to address new challenges. In late 2013, the Commission approved Version 5 of the Critical Infrastructure Protection Standards, requiring for the first time that all electric system cyber assets receive some level of protection, commensurate with their impact on the grid. The industry is now working to implement those requirements, and the Commission and NERC are working to assist with the transition. In addition, this summer the Commission announced that it is considering whether to direct the development of a Reliability Standard addressing cyber threats to the electric infrastructure supply chain, and the Commission has scheduled an upcoming technical conference to further explore the issue. We will continue to monitor cybersecurity developments and determine whether additional reforms to the reliability standards are appropriate.

The Commission's work on cybersecurity threats is not limited to modernizing the standards, however. Because cyber threats are constantly evolving, we recognize that they cannot be addressed with reliability standards alone. Therefore, the Commission and its staff work with leaders across the electric industry and federal and state governments to identify, communicate, and respond to cyber threats against the grid.

The Commission has also sought to address the threat posed by geomagnetic disturbance (GMD) events caused by solar storms. This issue has been a personal priority during my time at the Commission, given the potentially catastrophic effects that a major blackout triggered by a GMD event could have on the country. To date, the Commission has taken a two-step approach to address this threat. First, using its authority under section 215 of the Federal Power Act, the Commission directed NERC to develop a standard or set of standards that require transmission owners to take operational steps to prepare for GMD events. The Commission approved those

standards in June 2014. Next, the Commission directed NERC to develop standards that require transmission owners to protect against instability, uncontrolled separation, or cascading failures of the Bulk-Power System caused by a GMD event. In May, the Commission proposed to approve NERC's second-phase GMD standards, but to require certain revisions: (1) tightening the definition of a benchmark GMD event, which will be used to establish the baseline protections that must be in place; (2) adding more monitoring and assessment of GMD data; and (3) ensuring that corrective action plans are implemented in a timely manner. That proposal is currently pending before the Commission.

As the Commission, NERC, and industry have gained additional experience under the current standards, we have made adjustments to the reliability standards and the oversight processes to prioritize the protection of critical assets. Going forward, we will continue to be vigilant in our efforts to improve on the progress the Commission and NERC have made in setting priorities, developing and implementing reliability standards, mitigating violations, and disseminating lessons learned.

Supporting Reliability through Market Oversight

In addition to our reliability standards work, the Commission's oversight of wholesale electric markets plays a critical role in ensuring reliability of the nation's electric supply. To continue to meet our core responsibilities – promoting reliability and ensuring just and reasonable rates – the Commission has worked to ensure that these markets adapt to the significant changes in the nation's generation resource mix.

Two-thirds of the nation's population is served by the competitive regional electric markets run by Regional Transmission Operators (RTOs) and Independent System Operators

(ISOs). These markets have expanded in recent years, as more entities recognize the value of markets in ensuring reliability and the affordability for customers. At the end of 2013, the Midcontinent ISO expanded to include large parts of Louisiana, Mississippi, Arkansas, Texas, and Missouri. In October 2015, the Southwest Power Pool nearly doubled in size to incorporate the “Integrated System,” which spans seven states in the Upper Midwest. Finally, the Energy Imbalance Market, which is run by the California ISO and covers parts of six states, began in late 2014, and several additional utilities have announced their intention to join.

The nation is experiencing significant change in the resource mix used to generate electricity. There are three primary drivers of this change. First, we are experiencing a significant increase in the reliance on natural gas for electric generation, due primarily to the increased availability and affordability of domestic natural gas, but also to its relative environmental advantages and its role in balancing the growing fleet of variable resources. Second, we are seeing considerable growth in renewable and demand-side resources, fostered by developments in technology and by policy initiatives at both the state and Federal level. Finally, new environmental regulations, particularly the Environmental Protection Agency’s Mercury and Air Toxics Standards and Clean Power Plan, which Commissioner Honorable will address in her remarks, are driving changes in power supply.

These changes are stress-testing the competitive markets. The growth of natural gas resources as well as new environmental requirements are leading to the retirement of baseload capacity, particularly coal, and driving the need for new investment. During the initial transition to competitive market structures, most regions had excess capacity, and regional markets produced efficiencies that led to lower wholesale prices. As resources have retired, some areas are transitioning from generation surpluses to scarcity. That scarcity is leading to higher forward

capacity prices and more focus on market outcomes. At the same time, affordable and abundant domestic natural gas is creating challenges for other resources, while the deployment of new renewable technologies is leading to integration challenges. In many places, we see lower energy prices during most hours due to the low variable cost of renewables and gas, yet we also see spikes in the cost of electricity during times of system stress.

These changes are also causing the competitive market operators across the country to examine their rules to ensure that reliability is properly valued and sustained. At a time of resource change and the need for new investment, it is particularly important that markets send accurate price signals to both existing and new resources. The Commission's recent efforts have focused on all aspects of our competitive markets, including the energy, capacity, and ancillary services markets. As I mentioned when I previously testified before this committee, starting in 2013, the Commission has worked to help adjust capacity markets to these new challenges and attract needed investment in new and existing resources. In the last year and a half, the Commission approved market changes in eastern RTOs that redefine the capacity product to procure generation resources that can perform when needed most, to ensure that we can keep the lights on during extreme weather events and other times of system stress.

In addition to our efforts on the organized capacity markets, last year the Commission began an effort to examine price formation in organized energy markets, to ensure that energy prices are providing accurate and transparent price signals to both existing and new resources. The primary goal of the price formation effort is to ensure that marginal energy prices properly and transparently reflect the true costs of supplying electricity and support efficient investments to maintain reliability. FERC held a series of technical conferences over the last year on significant but highly technical issues that impact energy prices in the wholesale markets, and the

Commission has begun to act on discrete issues identified through that process. In September, the Commission issued a Notice of Proposed Rulemaking on aligning settlement intervals with dispatch intervals and on shortage pricing, to help ensure that real-time prices reflect the true value of providing energy and provide appropriate signals for resources to respond to the operating needs of the market. Last month, the Commission issued an Order Directing Reports, seeking more information on several other technical areas that impact price formation in the markets, including pricing of fast-start resources, commitments to manage multiple contingencies, look-ahead modeling, uplift allocation, and transparency. The Commission has also signaled its intent to act in the coming months on other price formation issues.

Separately, the Commission has also focused on gas-electric interdependence issues, an effort that grew out of the increased reliance on gas-fired generation, particularly in regions that also rely on natural gas for heating during the winter. After engagement with stakeholders, the Commission determined there was a need to better align the gas markets and the electricity markets to optimize the use of our pipelines to ensure the reliable operation of gas-fired generation. On that front, FERC established new rules to better harmonize scheduling in the gas and electric markets to provide the most efficient scheduling rules for both industries. The Commission also modified its rules to promote increased communication between transmission operators and gas pipelines. These market rules changes should help maintain reliability at times when gas pipeline capacity is stressed.

The Commission also adopted a number of other markets rules to help accommodate the integration of renewables and other new technologies into the energy markets. In recent years, FERC has issued rules to integrate variable energy resources, compensate resources for providing frequency regulation in a way that recognizes greater contributions from faster

ramping resources, compensate demand response resources, and reform transmission planning and cost allocation requirements so that they consider, among other things, transmission needs driven by state and federal public policy requirements. All of these rules are intended to ensure that we are optimizing the resources that serve customers and support our goals of ensuring grid reliability.

Ultimately, maintaining the reliability of the electric grid is of paramount importance to our way of life and our economy. The Commission's responsibilities for reliability are at the very core of our work, and I am honored to play a role in those efforts. I thank the Subcommittee for giving me the opportunity to appear before you today, and I welcome your questions.

Mr. WHITFIELD. Thank you very much. Our next witness is the Honorable Tony Clark. Mr. Clark, welcome back and we look forward to your testimony and you are recognized for 5 minutes.

STATEMENT OF HON. TONY CLARK

Mr. CLARK. Thank you, Mr. Chairman and members of the committee, Mr. Ranking Member, for the invitation to be with you here today. My name is Tony Clark, and I am honored to be a commissioner on the Federal Regulatory Agency since June of 2012.

I don't plan to re-read my testimony verbatim for you, but what I would like to draw your attention to a few points, and perhaps expand on a few ideas and comments that I made in my submitted testimony.

The nature of my testimony is focused on those areas of Commission jurisdiction that relate to infrastructure development. The Commission has a lot of impact on infrastructure development of all kinds, be it generation, electric transmission. But most clearly where we have the greatest authority is over those areas where we have not only economic jurisdiction, but siting jurisdiction as well, which is the case of hydropower and interstate natural gas pipelines. So the bulk of my testimony focuses on that, and then transitions to the importance of infrastructure in regard to EPA's 111(d) regulation.

On the hydropower side, the Commission has been active in implementing the Hydropower Regulatory Efficiency Act of 2013 that you all passed, and that has been going well.

I draw your attention to just a couple of things under that in the testimony. What I think is really important to folks in going forward is what Ranking Member McNerney pointed out, which is that we are entering a period in which there are going to be a lot of licenses that are coming up for renewal. As all of you who are members who have those hydropowered licenses in your district know, those can become contentious issues, the sorts of things that your constituents want to keep abreast of. So it is something that I know FERC will want to be working with all of you in terms of getting information out about how that process evolved and how it worked. It is going to be a great undertaking for the Commission.

I spent the rest of the bulk of my testimony talking about the issue of interstate natural gas pipelines, one of the tables that I submitted in there indicates that as of up to this point, we are within the historical norm of the number of certificates that the Commission has been processing in terms of compression, throughput and the number of applications that we have been getting.

Something that I really want to draw your attention to are the challenges that the Commission is going to face on a going-forward basis. This expands upon my testimony here. If you look at the number of pending applications that we have, as compared to the historical trend, we are truly seeing the impact of low-cost natural gas, and the environmental regulations which are shutting down coal and really requiring utilities to have some combination of natural gas and renewables.

If you look at August of 2014, the Commission had pending pipeline projects of about 24 Bcf per day, and about 1,000 miles of pipe. If you fast forward just about a year later to November of this year,

the number of pending applications we have is 50 Bcf per day capacity, so over a doubling in just 1 year, and 4,600 miles of pipe. The Commission is very proud that up to this point, we have been able to process in 92 percent of all cases, pipeline applications. Within a year, I think it is going to be very difficult to maintain that high average when you have this volume of pipelines.

And this is where I get into the 111(d) regulations, and I think it is important for the committee to understand the challenge that regulators at all levels are going to be facing, Federal level and state, which is, there are tremendous infrastructure needs in terms of pipeline development, in terms of generation on the state side of things, in terms of transmission. But all of this is being done in a time when we have heightened opposition to that very infrastructure itself. And it is very important to understand that in terms of where the 111(d) regulations are going in terms of timing. Although the EPA did extend timelines for compliance for states by up to 2 years. If you remember the timelines on that, in many states, utilities won't be receiving the state implementation plans until about 2018, compliance timeline begins in 2022. And yet, it is quite clear, at least historically, that it takes, for major pipeline projects and certainly for interstate electric transmission projects, it is a 3 to 5 to 12 years or more timeline to develop that infrastructure.

The concern is, if you make a rapid transition to a new electric generation fleet before you have the infrastructure in place to accommodate that change, there will be an impact on cost and that has been the case just about everywhere that that transition has been made, but you don't have the adequate infrastructure. So it is going to place a lot of pressure on agencies like FERC to ensure that as we go through our processes, that we do it right, but it is going to create a timeline challenge, I think, potentially a consumer challenge as well.

I finally wrap up my testimony just indicating that where we stand on the CPP is often where you sit, and this plan does not burden all states equally. So there are certain parts of the country, certain states that shoulder a much greater burden under this, and will have a much more difficult time meeting it than other parts of the country.

Mr. Chairman, with that, I will be happy to take any questions that—

[The prepared statement of Ms. Clark follows:]

**Written Testimony of Tony Clark
Commissioner
Federal Energy Regulatory Commission**

**Before the
Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives**

**Hearing on
Oversight of the Federal Energy Regulatory Commission**

December 1, 2015

Chairman Whitfield, Ranking Member Rush and Members of the Committee, thank you for the invitation to appear before you today. My name is Tony Clark and I am honored to serve as a Commissioner of the Federal Energy Regulatory Commission.

A central focus of FERC's job is to help ensure the provision of reliable, affordable energy to the American people. This mission supports a vibrant economy, and the health, safety and quality of life of our nation. FERC accomplishes its goals through a number of actions, including our oversight of jurisdictional markets, our responsibilities for bolstering reliability, and our duty to oversee the prudent development of certain energy infrastructure.

My submitted testimony focuses on those areas of the Commission's responsibility that relate to energy infrastructure. Necessarily, that discussion will lead me to provide some comments on the Environmental Protection Agency's recently finalized rules related electricity sector CO2 emissions under section 111(d) of the Clean Air Act.

The Commission plays an especially important role in the siting of hydroelectric and natural gas infrastructure.

With regard to hydropower licensing, the Commission continues to advance Congress' initiatives in the Hydropower Regulatory Efficiency Act of 2013 by processing conduit exemptions and preliminary permit extensions.

Since issuance of the Act through November 24, 2015, staff has received notices of intent to construct 67 qualifying conduit facilities, 39 applications for extensions of permit terms, and no small hydropower exemption applications for projects between 5 and 10 MW. Of the 67 conduit facilities, 55 have been qualified, 8 were rejected because they did not meet the criteria set forth in the Act, and the remaining 4 are pending. Of the 39 applications for permit extensions, 20 were granted and 19 were denied due to lack of diligence.

On October 22, 2013, in compliance with the Act, the Commission staff held a workshop to investigate the feasibility of a two-year process for the issuance of a license for hydropower development at non-powered dams and closed-loop pumped storage projects. Participants discussed whether such a process is feasible, presented ideas on the details of a two-year licensing process, and discussed potential criteria for identifying projects that may be appropriate for a two-year licensing process. On January 6, 2014, the Commission issued a notice soliciting pilot projects to test a two-year process. The notice also established certain criteria that a proposed project must meet to qualify to test a two-year process. In response, two pilot project proposals were filed. Commission staff rejected one because the project did not meet the criteria specified in the January 6, 2014 Notice.

The Commission did, however, notice a proposal for Kentucky River Lock & Dam No. 11 Hydroelectric Project No. 14276 on June 3, 2014. Commission staff held a technical conference with the applicant and interested parties on June 19, 2014, to discuss the project's proposed two-year process plan and schedule. On August 4, 2014, Commission staff approved the proposal to test the two-year process for the project, including a proposed license application due date of May 5, 2015. The prospective applicant filed a license application for the project on April 16, 2015. After a series of staff information requests, advisory phone calls, and responses by the applicant, on September 25, 2015, Commission staff issued notice that the application was ready for environmental analysis notice. Comments, recommendations, terms and conditions were due by November 24, 2015. The next step in the process is issuance of staff's environmental document.

On a separate hydropower topic, I feel it important to highlight for the Committee that the number of projects that will begin the relicensing process will substantially increase beginning in FY 2016 and continue well into the 2030s. Between FY 2016 and FY 2030, over 500 projects, which represent about 50 percent of our licensed projects and about 30 percent of the generating capacity under Commission jurisdiction, will begin the pre-filing consultation stages of the relicensing process. For those of you that have licensed projects in your districts, I am sure you will want to be up-to-speed on these matters because hydropower relicensing is the sort of issue that can generate considerable constituent interest.

Once new licenses are issued, the license implementation phase will begin. Currently, the Commission's license compliance and administration division is processing over 3,500 license-related filings per year. This workload is certain to increase given the number of projects to be relicensed.

Many of these projects now on the eve of relicensing were first licensed in the early to mid-1980s. This was prior to enactment of modern environmental standards, including those of the Electric Consumers Protection Act of 1986, which first directed the Commission, when issuing licenses, to give equal consideration to energy conservation, fish and wildlife protection, recreational opportunities, and environmental quality, and required that licenses be granted upon the condition that the project adopted shall, in the judgment of the Commission, be the one best adapted to a comprehensive plan encompassing fish and wildlife protection, irrigation, flood control, and water supply.

As we work through this period of substantial relicensing, I hope you and your staff members will see FERC as a resource to help provide background on the various projects and the Commission's regulatory process.

Moving to natural gas; within the natural gas sphere of our responsibilities, since I last appeared before you, the Commission has continued its work related to the siting of interstate pipelines and LNG export facilities. With regard to pipeline projects, although the Commission's work is perhaps more visible than it has ever been, the Commission's pipeline certification activity itself is within the historical norm as shown by the table below:

Major Projects				
Year	Number of Projects	Capacity (MMcf/d)	Miles of Pipeline	Horsepower (HP)
2005	17	8,746.4	703.0	123,036
2006	19	8,480.6	1,241.4	306,557
2007	28	18,874.2	2,591.2	849,110
2008	24	13,954.2	2,084.1	648,838
2009	23	9,781.0	953.9	728,129
2010	21	9,079.1	1,568.6	496,994
2011	15	4,032.8	303.8	280,255
2012	18	4,449.0	193.1	145,920
2013	17	7,308.9	262.9	185,011
2014	20	10,999.9	418.6	472,932
2015-Nov	20	9,537.0	262.9	292,490
Totals		105,243.1	10,583.5	4,529,272

In addition, the Commission continues to carry out its responsibilities related to the siting of LNG facilities. As of November 2015, the Commission has authorized 7 LNG export projects, totaling 10.62 Bcf/d in capacity. Another 10 projects have pending formal applications in various stages of review totaling 12.53 Bcf/d in capacity. Not included in these totals are the 12 other projects that are in the “pre-filing” stage.

The ongoing demand for natural gas infrastructure is not surprising given the changes occurring in the energy world. A combination of affordable natural gas and certain state and federal environmental policies have sharply increased electricity generation from natural gas and renewables, often at the expense of coal.

Working within the statutes passed by Congress, FERC has the responsibility to ensure that this infrastructure is sited the right way, which is accomplished through a siting process that allows various parties and stakeholders to be heard via a record that is compiled with both written submissions and public testimony.

While the Commission is generally able to handle most energy projects in a timely matter – in the last 10 years, 92% of all applications have been processed and completed within 12 months, I believe it is fair to observe that infrastructure development and siting is becoming more challenging.

Infrastructure, be it related to natural gas, large hydropower projects, electric transmission or generation (the last two being sited at the state level) engenders a level of opposition that was rarely seen in the past.

In years gone by, intervention in regulatory proceedings tended to be driven by those most directly affected by the energy project – for example a landowner who would prefer an energy project be located on “Site A” rather than “Site B.” The regulatory process is well equipped to consider and weigh these sorts of comments, and we still do receive a fair amount of this type of intervention in our cases. In fact, as a Commissioner, I have always viewed this type of intervention as particularly critical to our work because it helps develop a complete record regarding where infrastructure is both well and poorly suited.

But today there is an increasing trend towards “Just Say No” intervention. This intervention is designed to block entire classes of infrastructure projects – either through outright denial or through a strategy of defeat through delay. It is not opposition based on a particular project or its location; it is an opposition to all infrastructure as a matter of ideology. Often this opposition is from those expressing concern about climate change and carbon emissions.

The irony is that much of this infrastructure is being necessitated by the very regulations that are being promulgated in the name of reducing carbon intensity in the electric generating sector.

In the case of gas pipelines, it is in large part to fuel generators that are either replacing higher carbon emitting baseload coal plants or being paired with variable energy resources like intermittent wind and solar.

In the case of electric transmission lines, it is often to facilitate geographically distant renewables, and to optimize their use to compensate for their inherent intermittency.

I believe a major challenge for energy regulators over the next several years – both at the federal and state levels – will be to grapple with this tension of dealing with policies that necessitate large infrastructure projects in an era of heightened infrastructure opposition.

Dealing with these issues will be even more important should the Environmental Protection Agency's new 111(d) carbon regulations come to pass. For if infrastructure development is largely delayed or blocked, I have difficulty envisioning affordable or reliable ways for utilities to meet the EPA mandates.

These 111(d) rules put regulatory commissions at the state and federal level in a very precarious position. The rules are not ours; they are the product of the EPA. Yet nearly all of the potential negative outcomes fall squarely on our shoulders, whether related to affordability or reliability. While I continue to have concerns related to potential market impacts and jurisdictional issues, for the purposes of this testimony, I will highlight the potential tension between 111(d) and infrastructure.

In this regard, I note the timelines contained in the EPA's rules. While the final rule, as compared with the draft rule, extended state compliance timelines by up to 2 years, it is worth remembering how long it takes infrastructure projects to be developed.

Final state implementation plans would not be due, in many cases, until 2018. Compliance targets begin in 2022. Yet major pipeline and transmission projects can take anywhere from 3-12 years, or longer, to accomplish from concept to in-service completion.

I would emphasize that if a generation resource shift is compelled prior to necessary infrastructure completion, electric reliability could be a challenge, but regardless, affordability will almost certainly suffer. Substantially higher energy costs have been the result everywhere this has occurred, and it will not be any different in this case if expanded infrastructure is not built in time to meet the generation mix changes required by the regulation.

This problem, at least from an affordability standpoint, will be compounded in certain parts of the country, where there is a significant risk of infrastructure assets being stranded years before the end of their useful lives. This means consumers will be paying not just for the new infrastructure, but also for the previous investments in assets that are being retired to comply with the EPA regulation.

The impact of this rule will not be evenly felt because of the nature of the EPA targets themselves. To be perfectly honest, some states don't have all that difficult a road to compliance. This is often related not so much to any particular policy choice the state made, but rather to the vagaries of the math behind the state-by-state targets set by EPA in relation to the nature and vintage of a state's legacy electric generation fleet.

For example, some states have older conventional plants that were just recently retired or are soon to be retired for reasons other than environmental regulations. These states may find targets that are relatively easy to meet because they will get full carbon reduction credit for the retirement of assets that were due to be retired anyway. It can be argued this has more to do with luck than planning.

At the other end of the spectrum are states like my home state of North Dakota. Between the draft and final rules, the state's emissions reduction target skyrocketed from 11% to 45%. In North Dakota, actual emissions were down 11% between 2005 and 2014, despite a rapidly growing economy. Utilities during that timeframe built a significant amount of wind power, in part as a hedge against carbon regulatory risk. Unfortunately, it turned out to be a hedge for which they will receive no credit. Additionally, the state's coal fleet is still relatively young, and has thus incurred recent investments for environmental compliance. In fact, North Dakota is proud to be one of only a few of states in full attainment of EPA's National Ambient Air Quality Standards. Nonetheless, the state was given an emissions reduction target so punitive that I struggle to conceive of a way it can meet it in an affordable manner. Indeed, the North Dakota Health Department has estimated the annual cost of compliance if the state adopted an emissions credit trading program could top \$400 million per year; a staggering figure for a state of less than 750,000 people.

I hope Committee members understand how problematic this is for states like North Dakota that did not fare so well under the EPA's state-by-state emissions target math. Such states stand to see a huge transfer of wealth out of them, and will receive little in quantifiable environmental benefits in return given the worldwide nature of carbon emissions.

Mr. Chairman and Committee Members, that completes my submitted testimony, I would be happy to answer any questions you may have.

Mr. WHITFIELD. Thank you very much. And our remaining witness is the Honorable Colette Honorable. And we appreciate your being with us today, and look forward to your testimony. You are recognized for 5 minutes.

STATEMENT OF HON. COLETTE D. HONORABLE

Ms. HONORABLE. Thank you, Mr. Chairman, Ranking Member McNerney, and members of the subcommittee, good morning. My name is Colette Honorable. And as ranking member of the full committee, Mr. Pallone referenced, Congressman Pallone referenced, this is my first appearance before this subcommittee. I am grateful for the opportunity.

Prior to joining the Federal Energy Regulatory Commission, I served as chairman and commissioner at the Arkansas Public Service Commission for 7 years, I also served as president of the National Association of Regulatory Utility Commissioners, and it gave me an opportunity to get to interact with a number of states that come from different places, different ideologies, and it gave me a great appreciation for the diversity in states and regions.

It also allowed me to continue my focus here in my present role on reliability, on infrastructure development, a new focus for me, markets, and also continuing to work on workforce development issues.

Our mission at FERC is to regulate the interstate transmission of electricity, natural gas and oil. This work is especially significant because our economy is increasingly dependent upon reliable and affordable energy.

My written testimony goes into more detail regarding my thoughts about reliability and infrastructure development and markets, but this morning, I would like to focus on something you want to hear about, and that is our interaction with the EPA concerning the Clean Power Plan.

Our focus on the EPA's Clean Power Plan finalized in August has involved engagement, collaboration and outreach with a diverse group of stakeholders. In early 2015, the Commission hosted four technical conferences on whether and how the plan would impact reliability of the bulk power system. We heard from state regulators, from utilities, from regional system operators, from environmental groups, and consumer organizations.

These conferences raised a host of issues that informed the Commission's advice and counsel in a letter we sent to the EPA in May of 2015. In this unanimous document, we advised the EPA to consider revising its interim compliance timeline in the draft plan to ensure flexibility in the early years of compliance. We also encouraged the EPA to consider including both a reliability safety valve, which would allow the Commission to work with the EPA to address temporary unexpected impacts on reliability, and a forward-thinking process to provide for ongoing reliability, monitoring an assistance which would rely upon existing planning procedures in States and regions to initially review State plans for potential reliability concerns. The EPA accepted our recommendations in the final rule.

Going forward, FERC stands ready to support the work of the states, the regions and NERC, and other reliability entities. The

Commission has offered to review analyses or requests additional assessments as necessary. We continue holding technical conferences or other workshops as states and utilities will begin complying with the rule, and pursuant to a joint staff-working document that informs our interagency work, we will continue participating in future discussions with the EPA and the Department of Energy, and others as necessary.

Since the issuance of the Clean Power Plan, I have continued my engagement with diverse groups. For instance, in October, I participated in a workshop hosted by the bipartisan policy center in the Great Plains Institute, which focused on compliance in the Midwest. Although most of these states are challenging the rule in court, many are also working on compliance plans should the plan be upheld.

For example, agencies in my home State of Arkansas are evaluating compliance options, even though the State has joined the litigation. And 13 other states have reportedly indicated that they will follow a similar path. I mention this to say that many states are on a dual path.

A number of studies indicate that if the rule is upheld, fully contemplated compliance plans will have considerable potential to reduce compliance costs, particularly those undertaken in regional efforts. In the Midwest, both the Southwest Power Pool and the Midcontinent Independent System Operator has released studies completing that regional compliance with the Clean Power Plan is more efficient, less costly, and, therefore, better for consumers. It is imperative that all effective stakeholders engage and work collaboratively to maintain reliability, while minimizing any potential cost impacts of plan implementation.

I would like to take this opportunity to show my appreciation for our staff, which have worked very hard in this regard, and also to support the ongoing work in the sector by industry, regulators and other stakeholders, which is vital for a thriving economy. We take our job seriously, and I am proud to be a member of the Commission at this time. I am also appreciative and grateful for the important oversight work of the Energy and Power Subcommittee. I look forward to working with you throughout my tenure, and I stand ready to answer my questions you may have. Thank you.

[The prepared statement of Ms. Honorable follows:]

**Written Testimony of Colette D. Honorable, Commissioner
Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives
December 1, 2015**

Hearing on, "Oversight of the Federal Energy Regulatory Commission"

Good morning Chairman Whitfield, Ranking Member Rush, and members of the Energy and Power Subcommittee. I am Colette Honorable, a member of the Federal Energy Regulatory Commission (Commission).

Thank you for the opportunity to testify at today's hearing. I am the newest member of the Commission, having been sworn in this past January. This is my first appearance before this august subcommittee and I am grateful for the opportunity.

Prior to joining the Commission, I served as a commissioner and chairman at the Arkansas Public Service Commission for seven years. I also had the privilege to serve as President of the National Association of Regulatory Utility Commissioners (NARUC) when the Clean Power Plan proposal was issued. This role offered me an opportunity to interact with and gain an appreciation for the diversity of the states and regions and lead the association's engagement with the Administration and other energy principals on a wide range of energy issues. This experience provided a unique foundation for my current tenure at the Commission.

Our mission at the Commission is to regulate the interstate transmission of electricity, natural gas and oil. We oversee the reliability of the Bulk-Power System, regulate wholesale energy

markets, consider proposals to build energy projects, and ensure wholesale sales of electricity in interstate commerce are just and reasonable. This work is especially significant because our economy is increasingly dependent upon reliable and affordable energy. I look forward to discussing the following issues in my testimony today: reliability generally, the Clean Power Plan, infrastructure development, and markets.

Reliability

I will begin with our overarching work regarding the reliability of the electricity grid. In the Energy Policy Act of 2005, Congress granted FERC authority to oversee the development and enforcement of reliability standards and impose civil penalties where necessary to ensure the reliability of the Bulk-Power System. Over the ensuing years, the agency designated the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization responsible for developing reliability standards. In its oversight role, the Commission has worked collaboratively with NERC to incrementally refine those standards. Moreover, our Office of Energy Infrastructure Security routinely collaborates with federal and state agencies, and energy system owners, users, and operators to identify, communicate, and mitigate cyber and physical threats to the Nation's energy facilities. This also includes a voluntary commitment to proactively assess industry systems for weaknesses and collaborate on securing infrastructure. I believe the systems in place are serving consumers of this country well.

The ongoing implementation of NERC's Risk-Based Compliance Monitoring and Enforcement Program is an excellent example of the collaborative work between NERC and the Commission to ensure the reliable operation of the Bulk-Power System. This program uses risk-based

reliability assurance methods instead of monitoring all reliability standards and requirements or compliance issues in the same manner. This will enable NERC and the industry to dedicate their resources where they are most needed to ensure the reliable operation of the grid. The Commission continues to oversee this effort to ensure that the program becomes more efficient without sacrificing system reliability.

The commission has also approved the consolidation of multiple Reliability Standards in the past year. Through these rulemakings, the Commission seeks to promote efficiency by reducing requirements that are either redundant with current requirements or have little reliability benefit. These consolidated Standards have the potential to increase reliability by improving the efficiency of compliance programs industry-wide.

Separately, the Commission issued a Notice of Proposed Rulemaking to address threats from geomagnetic disturbances, or space weather. These high-impact, low-frequency events have the potential to severely impact the reliable operation of the Bulk-Power System. If implemented, this proposal would require planning coordinators, transmission planners, transmission owners and generator owners to take appropriate actions to prepare to withstand geomagnetic disturbances.

Clean Power Plan

Our focus on reliability has continued through our engagement with stakeholders in the energy sector and the Environmental Protection Agency (EPA) during implementation of the Clean Power Plan. In early 2015, FERC hosted a series of technical conferences on the implications of

compliance efforts with regard to the Clean Power Plan. These conferences, held in Washington, D.C., Denver, and St. Louis, aided the Commission in assessing whether and how the Plan may impact the reliability of the grid. We heard from diverse stakeholder groups: regulators, utilities, regional transmission organizations (RTOs) and independent system operators (ISOs), environmental groups and consumer organizations. These conferences raised a host of issues that informed the Commission's advice and counsel to the EPA. In addition, I co-moderated a "deep dive" workshop in May 2015 sponsored by the Bipartisan Policy Center (BPC) on specific reliability measures such as the Reliability Safety Value and Reliability Assurance Mechanism that many believe will help shore up the reliability during compliance with the Clean Power Plan if necessary.

The feedback the Commission received during our technical conferences, along with information gathered from the BPC event and other types of engagement, including letters and comments from stakeholders, informed our communication to EPA this past May. In a letter signed unanimously by the Commission, we advised EPA to consider reviewing the interim compliance timeline set forth in the proposed Clean Power Plan to ensure flexibility in the early years of compliance. In addition, we encouraged EPA to consider adopting both a "Reliability Safety Valve," which would allow the Commission to work with the EPA to address temporary, unexpected impacts upon Bulk-Power System reliability, and a proactive process to provide for reliability monitoring and assistance. Under the latter process, existing planning procedures should be used initially to review state plans for potential reliability concerns. The EPA accepted our recommendations in the final rule.

Going forward, the Commission stands ready to work with EPA, the Department of Energy (DOE), the states, regions, NERC and other stakeholders. The Commission has offered to review analyses or request additional assessments as necessary. We also noted that the Commission could continue holding technical conferences or other public workshops as states and utilities begin implementation of the rule. Pursuant to a joint staff working document that informs our interagency work, we will continue participating in future discussions with EPA and the Department of Energy (DOE). This may include further engagement with NARUC or the BPC, in addition to continuing our work with RTOs, ISOs, NERC and regional entities.

Since the issuance of the final Clean Power Plan, I have continued engaging with diverse groups. For example, in October I was invited to participate in a workshop hosted by the BPC and the Great Plains Institute which focused on compliance in the Midwest. Although most of these states are challenging the rule in court, many are also working in parallel on compliance plans should the rule be upheld. Indeed, my home state of Arkansas is a fitting example. During my tenure as chairman of the Arkansas Public Service Commission, we worked closely with the Arkansas Department of Environmental Quality and a diverse group of stakeholders to evaluate the issues associated with Arkansas's compliance with the Clean Power Plan. These discussions have continued, even though the state has joined the litigation against the final rule. According to press reports, thirteen other states have reportedly indicated they will follow a similar path as Arkansas. A number of studies indicate that if the rule is upheld, fully contemplated compliance plans will have considerable potential to reduce compliance costs, particularly those undertaken in regional efforts. In the Midwest, for example, both the Southwest Power Pool and the Midcontinent Independent System Operator have released studies concluding that regional

compliance with the Clean Power Plan is more efficient, less costly, and therefore better for consumers. It is imperative that all affected stakeholders engage and work collaboratively to maintain reliability while minimizing any potential cost impacts of plan implementation going forward.

Infrastructure

Market realities, new technologies and innovation, and policy and regulations at the Federal and state levels are causing a dynamic shift in our energy usage. With natural gas and renewables comprising a larger role in the U.S. generation resource mix, many new gas infrastructure projects are being proposed for our consideration. The Commission's role includes review of proposals to construct liquefied natural gas terminals and interstate natural gas pipelines, as well as licensure of hydropower projects to ensure that such projects are in the public interest.

In September 2015, the Commission's Office of Energy Projects reported that 60% of the new generation-in service this year (January-September 2015) was from renewable sources. Most of this new capacity was wind—2,966 MW of installed capacity—and solar, with 1,137 MW of installed capacity. Gas accounted for 2,884 MW, or 39.6% of installed capacity thus far in 2015. In order to bring this new and diverse generation to market, new infrastructure—pipelines, power lines, and other technologies—will be necessary.

In the electric industry, RTOs, ISOs, transmission providers, and their respective stakeholders are addressing the need for additional transmission projects and the ability to integrate storage, energy efficiency and demand response in regional and interregional planning processes. We

have continued to refine the Order No. 1000 competitive solicitation process, which has helped bring together a number of significant stakeholders around regional planning processes. While the planning processes are almost fully underway, as demonstrated in compliance filings, regional differences and modeling issues are proving to be particularly challenging for interregional planning processes. As these new processes are evolving, we will continue to listen to stakeholders and be open-minded on changes necessary to improve Order No. 1000. I look forward to working with my colleagues to ensure that our efforts pursuant to Order No. 1000 meet their intended goals.

Markets

The last matter I will discuss in my testimony is our ongoing work regulating wholesale electricity markets.

Overall, we have a responsibility to ensure that electricity markets are functioning as intended. To that end, the Commission is currently undertaking a broad review and assessment of price formation in energy and ancillary service markets. Energy and ancillary service markets are more mature than capacity markets, but I believe it is important to scrutinize these markets to observe recent trends in generation retirement and renewable resource penetration. We have seen generation resources retiring due to economic considerations, along with an increased need for ramping capabilities and flexible resources as more intermittent resource connect to the grid. The Commission recently conducted three technical conferences to explore these and other issues. Our continuing work on price formation will focus on: compensating generation resources for the value they provide; appropriately reflecting commitment and dispatch decisions

in market prices; providing needed transparency and certainty; and, minimizing cost to consumers. The Commission recently took several steps to improve energy and ancillary service price signals and I expect more actions will follow.

Federal and state policies often interact to influence capacity markets. We will continue to evaluate the design and operation of all capacity markets and find new ways to balance the interests of Federal and state policies. As capacity markets across the country continue to respond to dynamic changes in generation, I have appreciated the opportunity to engage with RTOs and ISOs and stakeholders to gain a better appreciation of the diversity of the regions and their robust efforts to support efficient market operations.

We are also observing growth and shifts in regional organization participation as well. The successful launch of market operations as well as markets yielding benefits greater than originally expected all demonstrate that, while not perfect, regional markets continue to yield benefits for consumers nationwide.

Conclusion

I'd like to take this opportunity to offer my appreciation for the hard work of my colleagues and our staff. The work we do is essential to supporting the ongoing work by industry, regulators and other stakeholders in the energy sector, which is vital for a thriving economy. We take our jobs seriously and I am proud to be a member of this Commission.

I am also appreciative of the important oversight work of the Energy and Power Subcommittee. I look forward to working with you throughout my term at the Commission and am pleased to answer any questions you may have.

Thank you.

Mr. WHITFIELD. Well, thank you for your testimony. And we appreciate all of you for your opening comments. At this time, we will open it up for questions from the members of the subcommittee. And I would like to recognize myself for 5 minutes to begin with.

We all recognize we have different political philosophies in different regions of the country that we come from, and as a result of that, we have a lot of different views on a lot of these key issues. But the Federal Power Act was very explicit that interstate electricity transmission authority was given to FERC, wholesale prices issues were given to FERC. And the states maintain control over electricity generation in intra-state distribution, and yet the clean energy plan gives EPA a lot of authority, in fact, immense authority on what has traditionally been a state responsibility.

And this was done without any legislation being involved; it was done by regulation. And we heard EPA talk a lot about how they worked extensively with the states; they want to give the states maximum flexibility. And yet, 27 states have filed lawsuits on this as well as a multitude of other entities. And then one of the surprising things for many of us, and Mr. Clark touched on this, was these timelines, in trying to make this transition with the infrastructure needs that we have, EPA frequently, on major regulations, to give states up to 3 years. And yet in this instance, they are giving them until September of 2016. So—and Ms. Honorable, you came from Arkansas, and you were on the public service commission there, I believe, and your state has filed a lawsuit as well.

So it is one thing for EPA, as a regulatory body in order to implement the President's Clean Energy Plan, to come with this unprecedented regulation. And I understand people say, Oh, it is all the about politics, but it is more about politics; it is about existing laws; it is about customary ways that we do business in the country. And that is why I think you see so many lawsuits. But I would like for you, Mr. Clark, just to expand a little bit on this timeline issue that you touched on, and just give us some practical insight into that just from the standpoint of, say, North Dakota.

Mr. CLARK. Sure, thank for the question, Mr. Chairman. My concern about the timeline that, say, you have the 2016 timeline, you have the possibility for states to push that out if they request from EPA to about 2018 for the State Implementation Plan, should they decide to go that route.

The compliance targets begin in 2022, some of them are quite steep for certain states, will be challenging to me. For example, a State like North Dakota, whose target emissions reduction went from 11 percent in the draft to 45 percent in the final rule.

Mr. WHITFIELD. Kentucky went from 18 to 41. And all of those caps were set by EPA.

Mr. CLARK. It is the math, every state is impacted differently by the math, and the manner in which the historical generation plate is operated. So for some states, it is a bit of a non event for some states, depending on the vintage and type of fleet that they have. It will be much more of an event.

The concern with the timeline is, for a pipeline project, any sort of major pipeline project, 3 to 5 years is probably a conservative timeframe implement—from engineering and permitting to construction and in service states.

Electric transmission lines typically are even more difficult than that. Five years to 10 might be a little bit more average. Heaven forbid, you cross any Federal land as happens out west. It could be 12, 15 years to get all the permits that you need to do for a major electric transmission line.

And so that is the concern. If you are going to change dramatically the generation fleet and you need to have a lot more renewables, which really only work over a larger geographic area, and you will need a lot more natural gas to back up those renewables or to replace baseload coal that may be going off-line. It is going to require some major infrastructure projects. We are starting to see it on the gas transmission side, likely happen on the electric transmission side. These are not projects that are conceived of, permitted and built within a very short timeframe. And the concern is, if you change that generation fleet, it could end up costing consumers.

Mr. WHITFIELD. Well, thank you very much. I had a couple of other questions, and my time has already expired. So, Mr. McNerney, you are recognized for 5 minutes.

Mr. MCNERNEY. Thank you, Mr. Chairman. Again, I thank the commissioners for coming today. I got a lot out of all of your testimony, so thank you for your work. And this is an area that I care a lot about. I spent 20 years in the energy industry before coming to Congress.

Mr. Chairman, do you have a mission statement, or does the Commission have a mission statement? Could you sort of paraphrase what that statement is?

Mr. BAY. Yes. FERC does have a mission statement. And it is to provide efficient, reliable, and sustainable energy to consumers. That has been our mission statement for some time now.

Mr. MCNERNEY. Sustainable, hmm, that is a whole different subject. Now, considering reliability, that is one of your primary missions is reliability. Do you feel, Mr. Chairman, that Clean Power Plan threatens the reliability of our electrical infrastructure or any of our energy infrastructure?

Mr. BAY. So reliability is one of our core responsibilities, and Congress gave us that responsibility in the Energy Policy Act of 2005. As Commissioner Honorable noted, FERC held a series of technical conferences. On reliability and the Clean Power Plan, I am pleased to say that the EPA sent someone to each one of those technical conferences, and they had a high-level official appear before us and testify.

We later sent a letter to the EPA with certain recommendations. I am pleased to say that all five members of the Commission at the time signed that letter. And then the EPA issued its final rule. And I think it is noteworthy to focus on certain aspects of the EPA's final rule. One thing it did was to push back the initial compliance date from 2020 to 2022. So it allowed industry to have, in the states, to have 2 more years. It implemented a reliability assurance mechanism in that it required state plans to be reviewed by reliability authority, whether it is NERC, a regional reliability authority, and RTO or ISO, or someone else.

The EPA also recognized the reliability safety valve, which Commissioner Honorable noted as well. In addition, the EPA glide path

towards compliance, so that the period 2022 to 2030 is broken up into 3-year periods, where if a state fails to hit its target in one year, it underachieved in one year, it overachieved in the next, that can still help make its requirements, meet its requirements.

Finally, of course, the EPA built in a lot of flexibility. One of the things that they did in the rule to ensure that reliability issues could be addressed was that they allowed states to consider using emissions credits as a means of achieving compliance.

The other thing that we have done at FERC is we have entered into an agreement with the EPA and the Department of Energy to meet on a quarterly basis at the staff level to discuss any potential reliability issues. I am pleased to say that staff has held its first meeting with the EPA and DOE. So this is something we are going to be watching very closely.

In my view, while it will take a lot of hard work, communication and collaboration between FERC, the EPA, DOE, the states, NERC, the RTOs, ISOs, and industry, I believe that any potential reliability challenges can be addressed.

Mr. MCNERNEY. Thank you. Honorable LaFleur, do you feel the cyber threats and geo threats are more significant threats to reliability than the Clean Power Plan?

Ms. LAFLEUR. Well, there are different kinds of threats, but I would say they are more significant because they are systemic, where the Clean Power Plan could have, as several of my colleagues have referred to, different impacts in different areas. Solar storm could have an impact over a larger part of the United States. They are both things we need to obviously focus on.

Mr. MCNERNEY. Thank you. Mr. Clark, you mentioned the number of pending applications. What would help, how could Congress facilitate your response, the increasing number of applications?

Mr. CLARK. I think one of the things that Congress could help with would be to encourage other agencies that inform the FERC siting process, whether it be through LNG siting, whether it be through the LNG side of things, whether it be on the pipeline side of things. There are a lot of different agencies that inform our process to the degree that they can do their work in a timely manner, to inform our process. That would be helpful from a timing standpoint.

Mr. MCNERNEY. Thank you. Mr. Chairman.

Mr. WHITFIELD. Yes, sir. At this time, I recognize the gentleman from Texas, Mr. Olson, for 5 minutes.

Mr. OLSON. I thank my friend from Kentucky. And welcome to our friends from FERC. You-all's good morning gets even better, because my own State of Texas, it is a fact that fellow Texans take care of our own grid for 90 percent of our State. So we don't get impacted but what you do in many cases, but, they are very important to our State. Critically important to our home State of Texas.

My first question is for you, Mr. Chairman, and Commissioner Clark. Chairman Bay, you have talked about the importance of building gas-electric infrastructure for quite some time. It was one of the key things listed in your Senate confirmation hearing. Obviously, when it comes from an energy state like I do, I want to know how resources get to market. And Commissioner Clark, your comments about these supposed pipeline application in the future and

your testimony talked about how much more dramatic opposition to energy projects is becoming. It is out of control. We are going from a “not in my backyard,” to a “not in anybody’s backyard.” So my question to both of you all is, can we speak for a moment on the LNG energy infrastructure, and whether you see any trends on efforts to block development? The range is clear, fire at will, no agency is spared. Chairman Bay.

Mr. BAY. Congressman Olson, I think at FERC, we have clearly seen increased opposition to infrastructure. One of the things that has happened at FERC over the last—at this point, it has probably been 15 months or so—is that our open meetings have been disrupted by protesters who will suddenly stand up during our meeting and try to interfere with our meeting.

So we are clearly seeing that, and even in the field when we are holding scoping hearings, it is not uncommon for the staff who do those hearings to report back that there seems to be a great deal of opposition in many communities to the construction of more infrastructure.

Mr. OLSON. Commissioner Clark, your comments, sir, on a “not in anybody’s backyard” attitude in America right now?

Mr. CLARK. Sure. Thank you, Congressman, for the question. I reference this in my testimony that, for years, the Commission has always taken testimony from, say, affected landowners, who might prefer that a particular pipeline go on this piece of their property as opposed to that piece of the property, or maybe on someone else’s property, but it is very specific to the line itself. We have seen a bit of a transition, a type of intervention that has appeared before the Commission, which is—my testimony, I call it “just say no” intervention, which is no infrastructure anywhere. The challenge is that that causes all kinds of reliability and cost impacts to consumers if all energy infrastructure is blocked.

The Commission has a very important job in balancing the interest of all intervenors. The goal of our process is to ensure that the Natural Gas Act is faithfully implemented and that the orders that we get out are ultimately upheld by a judge who can review it and see if the Commission made a recent determination, and we have very a fairly good track record in that regard.

Mr. OLSON. Chairman Bay, as you know, the cost of carbon is being discussed in Paris right now at the U.N. Convention on Climate Change. And as a former naval aviator, it seems to me that some world leaders are writing, proposing checks that they can’t cash. I want to dive down on the cost of carbon, the social cost of carbon. FERC has said recently that the cost of carbon “calculator” isn’t appropriate for individual LNG projects. You said so in a past decision back in June.

You gave me a long answer in writing. But very shortly, can you tell me why it isn’t appropriate to use the cost of carbon for individual projects, why it doesn’t work, sir?

Mr. BAY. I would have to review that particular order, Congressman Olson. To my knowledge, FERC has not tried to calculate the social cost of carbon. It is true that when we are reviewing an infrastructure application, under NEPA, we were required to give a “hard look” at what the courts require of us, a hard look at environmental look at claims that have been raised. So it may be that

someone who was protesting the construction of that facility raised a claim tying into the cost of carbon. I do know that at the end of the day, the Commission did end up permitting that facility, the certificate was granted, as you know.

Mr. OLSON. One final question for you, Chairman Bay. Former Chairman Wellinghoff made it his mission to clear a path for energy efficiency, he focused on things, like demand response. As you took over as the chairmanship, there were some people who said they didn't know what your number one priority would be. What is your number one priority as the chairman of FERC?

Mr. BAY. I thank you for that question, Congressman Olson. I have tried to take a very balanced approach to my role as chairman. As many of the members have noted this morning, we are going through this period of tremendous change in energy space. So I think it is important for FERC to use the statutory authorities that Congress has given FERC to help the markets, market participants and industry adapt to that change while maintaining reliability and just reasonable rates.

And so, I have been looking at what I have been calling the basic, the fundamentals, and that includes authority over wholesale markets, and thus, we have been engaged in this price formation of rulemaking proceeding. We have looked at reliability, and as Commissioner LaFluer noted, we have engaged in looking at GMD, and we are continuing to work on cybersecurity, gas-electric coordination issues. And then, of course, there is infrastructure. And that is always going to be an important part of what FERC does.

Mr. OLSON. Thank you. I yield back.

Mr. WHITFIELD. This time the chair recognizes the gentleman from Texas, Mr. Green, for 5 minutes.

Mr. GREEN. Thank you, chair and ranking member, for holding the hearings. And following up my colleague and neighbor from Texas, I would hope my concern is electricity and reliability, I hope your goal is to make sure that the lights can turn on, and in August in Texas, we can still have air conditioning. I know FERC's responsibility to maintain the reliability of the grid, but you also have a lot of other responsibilities with pipelines, LNG facilities, or pipeline rates to name a few.

Chairman Bay, in your testimony, you cite the many responsibilities FERC is tasked with, including reliability, security and infrastructure.

Can you provide additional details on FERC staffing and work products? Does FERC have the resources and personnel necessary to meet the increasing demands placed on the Commission? If you could just briefly, because we only have 5 minutes.

Mr. BAY. That is a very important question that you raise, Congressman Green, in light of the workload that Commissioner Clark alluded to, and that workload is real. One of ways that we responded to it administratively is that we have added resources to the Office of Energy Projects, and they are going to need more resources. At some point, we may update our budget to Congress; I hope you look favorably upon that. But we are trying to respond by adding resources to the offices that need them.

Mr. GREEN. With the growth and natural and implementation of the Clean Power Plan, what types of resources does FERC anticipate needing in the future to ensure projects and plants can still stay on schedule? Is that being built into the request to the appropriations process?

Mr. BAY. It certainly will be, and we are responding to that now, which is why we added resources to that particular office.

Mr. GREEN. I still have this concern about permitting approval of LNG export facilities. We spent considerable time working on these issues, and want to ensure our country's benefits for the nearly 389 trillion cubic feet of gas reserves we possess. Can you provide an overview of the current permitting regimen, and have you encountered any delays that would slow these important projects?

Mr. BAY. I think the main thing about those projects is that that they are complex projects, there has to be a review by staff. We worked closely with staff, and we work well as a Commission, to review those project applications. As Commissioner Clark noted, basically about 90 percent-plus of the projects that we receive are certificated within one year after the application is filed with FERC.

So we understand the importance of these projects and doing a thorough and timely review, and we are certainly very committed to doing that. But clearly, there is a high volume of work now than in the past, which is why we are trying to address that by adding more resources.

Mr. GREEN. I have one port in the State of Texas, actually had five pieces, tracks that were set aside for five different LNG export facilities. I think there is effort to do one in that particular port.

Chairman Bay, as director of enforcement, your office is responsible for violations and inquiries in the market manipulation. Unlike other Federal agencies, FERC does not have an office of compliance or any other resources to regulate community to address questions or answers. This week, the House will take up H.R. 8 that contains provisions relating to the FERC transparency. Do you believe an office of compliance would be of benefit to the regulatory community?

Mr. BAY. In my view, that office is not necessary. Certainly, if Congress creates that office, we will do everything that we can to implement congressional intent, but if I could, I would just like to explain, Congressman Green, the different avenues that an entity can pursue with FERC to get guidance. First, there is informal outreach where the company, or the entity, can seek a meeting with staff, or even with the Commission, at least if there is not an investigation.

Second, there is a compliance help desk, so an entity can call staff to get guidance. Then there is the no-action letter process. So if they want something more than that, they can seek a no-action letter from the Commission. And then, of course, an entity has ability to seek a petition for declaratory order from the Commission if it seeks greater regulatory certainty. So no-action letter comes from staff, the petition from declaratory order comes from the Commission itself. My own view is that given that many avenues an entity can use, can pursue to seek guidance from FERC, that it would not

be necessary to create that office. I would also add that years ago, Congress created an Office of Consumer Advocate at FERC, but has never sought to fund that office.

Mr. GREEN. Well, I would hope that if we do create an Office of Compliance, we would fund it. It seems like some of things you are talking about would be rolled into an Office of Compliance. Mr. Chairman, I know I am out of time and thank you for your courtesies.

Mr. WHITFIELD. Thank you. At this time the gentleman from Illinois, Mr. Shimkus, is recognized for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman, and welcome. I am going to get a little parochial. MISO released an issue statement acknowledging that no forward planning process exists to ensure long-term reliability in southern Illinois. And that reform to its capacity market process may be required to sustain existing investment and drive future investments and help ensure a reliable electricity supply for consumers. Of course, I am in southern Illinois, and we have talked about some of the concerns on the most recent auction. But so this is kind of a jump off for whoever wants it. How does the Commission plan to ensure sufficient existing and new generation resources are in place for MISO zone 4?

Ms. LAFLEUR. Well, thank you, Congressman Shimkus. As you know, we can't specifically discuss zone 4, because there are several complaints, including from the state of Illinois, pending before us now—

Mr. SHIMKUS. But you don't need to talk about the adjudication. This is just a generic question on the question.

Ms. LAFLEUR. Yes. I think the primary thing we have been doing is looking very closely at the way the capacity markets actually define the product and what they call for to make sure that they properly pay for what it really takes to keep the lights on. In both PJM and ISO New England, they have set up structures where they create performance requirements and hold generators to them that are, in many cases, baseload generation are the ones that will be needed because they can be there at any time when they are needed. I think those are the sorts of things that have promised to make sure that I think there has been a concern whether there is something about baseload generation as being not properly valued, and we have to look closely at the market—

Mr. SHIMKUS. This follows up on my question. MISO has conceded with your endorsement, the FERC endorsement, to largely leave control of resource adequacy to the states. Is that appropriate?

Ms. LAFLEUR. That is different in different parts of the country. In the—

Mr. SHIMKUS. I am worried about southern Illinois right now.

Ms. LAFLEUR. Well, Illinois is in a somewhat unique situation because it deregulated generation, has merchant generation, like the Eastern markets do. Yet it is in the mid-continent ISO where the other states don't have that system. I think that there will be choices to make of both how MISO accommodates the states so different from the rest of them, and how Illinois does it.

Mr. SHIMKUS. Well, please keep an eye on this. Similarly, Chairman Bay, because we know we have decommissioning of coal-fired

power plants because of the war on coal, and that is accepted. You all have basically said that. We also are concerned about the decommissioning of nuclear power plants now in Illinois because of just what Commissioner LaFleur just mentioned. So the question is, should baseload generation be compensated for other benefits they provide, such as reliable power, providing essential reliable services, and fuel diversity that they bring to the market, including on-site fuel availability?

Mr. BAY. One of the things that the Commission has done to try to address in a general way that particular concern, Congressman Shimkus, is to work on price formation in the energy market itself. And so for that reason, the Commission has held a series of technical conferences, and in September, issued a rulemaking that seeks to align the settlement periods and dispatch intervals in a real time market and then to allow a shortage pricing to be triggered when shortages occur. Those sound very complicated. The basic premise is simple, and that is, that resources should be compensated for the value they provide when they provide it. So that certainly will help baseload resources that can steadily produce power at many different times of the day. And so the hope is that with more effective price formation, that that can send better signals to different kinds of resources, including the kinds of baseload resources that you noted.

In addition, the Commission is doing more than that. In November, we issued an order that seeks to gain greater transparency into the causes of uplift and uplift drivers in the RTO/ISO markets. And we have also signaled that we are going to look at the offer price caps in the organized markets as well as mitigation issues. So we are doing a whole host of things that are seeking to improve the efficiency of the wholesale markets.

Mr. SHIMKUS. So should this occur in an organized wholesale capacity and energy markets subject to your jurisdiction?

Ms. LAFLEUR. Well, in Midwest and the southern Illinois as part of the mid-continent ISO does not have a mandatory capacity market. Just 2 weeks ago, we denied rehearing on an order allowing MISO to continue to have a voluntary capacity market. That would be a major change if they went to a mandatory capacity market as the eastern states have. So right now, Illinois does have the resource adequacy control because they are not required to participate in the mandatory market.

Mr. SHIMKUS. Thank you, Mr. Chairman.

Mr. WHITFIELD. At this time, the chair recognizes the gentlelady from California, Mrs. Capps, for 5 minutes.

Mrs. CAPPS. Thank you, Mr. Chairman, for holding this hearing. And I thank Chairman Bay and all the commissioners for your testimony today. You have covered the many and varied tasks that FERC is responsible for and how these activities directly impact the provision, the transport, and reliability of energy from a variety of sources.

However, it is also clear that as we better understand the ramifications of our energy use, we have a greater responsibility to minimize the negative impacts that are associated with our actions. And part of this responsibility is to ensure that appropriate sources of energy are utilized to minimize harmful emissions through the

integration of renewables. But we also must look at the impact of transporting these dirty fuels. And that is where I would like to focus my questions today.

While this committee has recently been focused on the work of the Pipeline and Hazardous Material Safety Administration, or PHMSA, FERC also has jurisdiction over certain pipeline regulations. Pipelines are ubiquitous in this country. Whether transporting oil or natural gas, these pipelines crisscross the entire country, transporting fuels, both within and between states. And depending on the particulars of the pipelines, they are regulated by local, state, or Federal groups and agencies. It is also clear that transporting fuels and pipelines may have many risks associated with them. In my district, we witnessed this danger firsthand when the Plains pipeline ruptured and spilled full across the land and into the ocean this past May.

My first question is for Commissioner Tony Clark. Several agencies are responsible for regulating both oil and gas pipelines in various stages of siting construction operations. Can you please explain and elaborate on the responsibility of FERC in regard to both oil and natural gas pipelines?

Mr. CLARK. Sure. Thank you for the question, Congresswoman. With regard to oil and liquid pipelines, the Commission's jurisdiction comes from the Interstate Commerce Act, and is primarily associated with economic regulation of the pipeline and nondiscriminatory access to the pipeline, common carrier-type regulations, but does not include safety or the siting of pipelines, things like that, which would be either under PHMSA or some combination of PHMSA and state and local government.

In the case of interstate natural gas pipelines, the Commission has a much greater degree of oversight of the interstate natural gas pipeline. So in addition to the economic regulation, the Commission also oversees the physical siting of the project itself, again, with regard to safety, although some of those safety costs work their way into FERC jurisdictional tariffs and rates, the actual safety regulations themselves would not be FERC jurisdictional. It, again, would be—

Mrs. CAPPS. As a follow-up, could you please describe how FERC ensures that sensitive environments like those in coastal regions of my district are not negatively impacted by the siting and construction of natural gas pipelines?

Mr. CLARK. Sure. Thank you, again, for the question. The way that FERC ensures environmental protection is through being the lead agency for NEPA reviews on any interstate natural gas pipeline. And so FERC basically plays a role ensuring that all of the other agencies that might wish to comment, public which might wish to comment, and are able to do so in a way that we have a fully-developed record in front of us to ensure that we are meeting the environmental standards that are set up, both in the Natural Gas Act, but also those requirements that are set forward through NEPA.

Mrs. CAPPS. Thank you.

For Chairman Bay, while FERC has jurisdiction over some aspects of pipelines, as Commissioner Clark has just outlined, FERC is just one of several agencies with pipeline jurisdiction. After the

Plains oil spill in my district earlier this year, we dealt extensively with both the EPA and PHMSA. But it is clear that our communities are relying on many agencies and their cooperation, or lack of, to protect our local lands.

So, Mr. Chairman, does FERC work with other agencies to ensure that the siting and operations of pipelines is done in a way to maximize safety and minimize risks? And how does this happen?

Mr. BAY. Yes. Thank you for the question, Congresswoman Capps. During the application process in which a pipeline is seeking to receive a certificate from FERC, as Commissioner Clark noted, we have to do a NEPA review. And as part of that NEPA review, we have to work with many other agencies; state agencies, but Federal agencies as well. And the Federal agencies include EPA and PHMSA. And so we work with them. We also work with state authorities. And if there is an aspect about the proposed pipeline route that is problematic, certainly we have the authority to tell the pipeline to reroute the line. During the application process, pipelines will provide alternative routes as well for FERC to consider. And then we have to do an analysis about what which pipeline route seems to be more prudent.

Mrs. CAPPS. Thank you. I am out of time, Mr. Chairman, but I had a follow-up question that I wish I could get a written reply to, and that is, the collaboration between FERC and agencies like EPA and PHMSA. Are they successful in working together to mitigate negative impacts? Or are there opportunities to improve the level of collaboration and communication? And, these pipelines make a very complex intersection around the country. So if we could get that back in writing, I would appreciate it.

Mr. WHITFIELD. Absolutely. So we will note that. And we hope you can get back to us on that.

At this time, the chair recognizes the gentleman from Ohio, Mr. Latta, for 5 minutes.

Mr. Latta. Thank you, Mr. Chairman. And to the commissioners today, we greatly appreciate you being here for your testimony. I am going to kind of follow up on the gentlelady from California on questions that she has. It is FERC's responsibility to make information available and notify the public about a project's status and its schedule. FERC staff testified in support of bringing this information together in one location on FERC's Web site. And this is addressed to the chairman and Commissioner Clark. Do you support the concept of a project dashboard where the public can see the schedule established by FERC and the list of actions required by each applicable agency to complete permitting? Chairman?

Mr. BAY. Thank you, Congressman Latta. I think that is an interesting idea. And certainly, I share the goal of providing transparency into the project applications that FERC is considering. Currently, that information is available through eLibrary, where all the filings relating to a project are placed and where they are accessible to the public. It can be harder, I think, for a member of the public, however, to find the right document.

So the idea that you presented is an interesting one. And I would like to talk to staff some more, as well as my colleagues on the Commission, to get their views. Certainly, though, we support the idea providing transparency into the work that we do.

Mr. LATTI. Thank you. Commissioner Clark?

Mr. CLARK. Congressman Latta, I think it is an absolutely worthy goal. The issue of transparency into exactly how commission processes work is very important in terms of—especially a land owner who, for example, may be being contacted by an infrastructure development company, a pipeline company, and doesn't know where to turn to next. And for those of us who live and breathe the world of regulation every day, sometimes it can seem simple to maneuver our processes. To someone who has never seen the FERC Web page before, they might not be quite so simple. So a look at that with fresh eyes is probably something that makes a lot of sense.

Mr. LATTI. Thank you. And, again, both to Commissioner Clark but also to the chairman, based on hearing from my constituents' reviews of such as route planning and safety coordination would be important to include in this project dashboard to make the information more easily accessible to the public. Would these kinds of ideas be included? Chairman?

Mr. BAY. I am certainly happy to consider those ideas, Congressman Latta. One thing I would note is that FERC actually has a toll free number for landowners who have questions or concerns. We receive hundreds of calls each year from landowners. The calls go to our dispute resolution service. And I am pleased to say that they oftentimes can provide helpful information and guidance to landowners who have some sort of concern.

Mr. CLARK. I would concur with the chairman's comments. I would also add that one of the things that I have talked about with FERC staff is, as we go out into the public and have scoping meetings and public meetings and things like that as we have talked about before, there is a lot more interest in these hearings than we have had in the past. Sometimes it is from interveners and folks who just simply don't want infrastructure at all. But what is, I think, very important is that we ensure, from a staff standpoint, that we continue to ensure that the actual landowner who is affected when they walk into that room has that opportunity to speak on the record so that they can have their views known about a particular infrastructure project that is directly affecting them. And it is getting to be more of a challenge because the hearings—there are a certain number of hours, and there is a lot of people that show up. But we need to make sure that we have those avenues for people who are directly impacted by the infrastructure.

Mr. LATTI. Thank you. And, Commissioner Clark, I understand that under the Clean Power Plan, municipal electrics and a rural electric cooperative that are not currently regulated by State public utility commissions would be required to come under State regulatory jurisdiction for purposes of the Clean Power Plan compliance. In your experience, is this a dramatic change? And how will this impact the ways munies and co-ops do business in the future?

Mr. CLARK. Congressman Latta, I think depending on the state, and how the state decides to go about an implementation plan, or a Federal implementation plan, it could be a big change. I know in my home State of North Dakota it would be. The issue is that you are effectively requiring a state to come up with a sort of carbon integrated resource plan for the state as a whole. Obviously

municipals and co-ops are a big player in certain states, but traditionally have not been regulated in an integrated resource plan way that traditional utilities have been. So depending on the state, it could be a big change.

Mr. LATTA. Thank you very much.

And, Mr. Chairman, my time is about to expire. And I yield back.

Mr. WHITFIELD. Gentleman yields back.

At this time, the Chair recognizes the gentleman from Pennsylvania, Mr. Doyle, for 5 minutes.

Mr. DOYLE. Thank you, Mr. Chairman. And Chairman Bay and members of the Commission, welcome. And thank you for appearing before the committee today.

Commissioner Honorable, welcome to your first hearing. In your testimony, you mention reliability measures in the final rules of the Clean Power Plan. And one of the concerns that I have voiced repeatedly in these hearings is that the Clean Power Plan may jeopardize our fuel diversity. And in particular, that we could lose baseload power like coal and nuclear. Do you share these concerns? And if so, what do we do about that?

Ms. HONORABLE. Thank you for the question, Congressman Doyle, and thank you for the welcome. I, indeed, share your concerns, even hearkening back to my days as a state regulator. I believe that fuel diversity is really key in ensuring reliability in going forward, even in these dynamic times. Even aside from the implementation of the Clean Power Plan, industry and states are already moving toward cleaner and more efficient energy portfolios. And so, it is imperative that we protect fuel diversity. I believe we need it all, and we especially will going forward.

Mr. DOYLE. Thank you. Commissioner LaFleur, in your testimony, you highlight the recent shift in resources used to generate power. And you go on to highlight FERC's oversight of capacity and where it could change to ensure reliability as properly valued and sustained. So given the pressure from markets and rules like the new Clean Power Plan that shift away from traditional baseload sources of power, what is FERC doing to ensure our constituents that we can turn on the lights when they are needed most?

Ms. LAFLEUR. Well, thank you, Congressman Doyle. I think we are really working on several fronts. First of all, in the markets, we are trying to make sure that the markets properly and transparently value the reliability, including the reliability that baseload provides. And that has resulted in changes in the capacity market and ongoing work that may lead to changes in the energy market to make sure that those resources, especially the existing resources, are fairly paid for what they contribute. Secondly, the reliability standards have a role in making sure that essential reliability services, things like Black start and voltage support, that some of those big plans provide are properly accounted for and required. And there is a lot of work going on under the auspices of NERC to adapt the standards to changes in power supply.

And finally, I think we need to work closely with the EPA as we did on MATS so that as implementation starts, we keep an eye on regions of the country that may have an issue and be there early enough to intervene if we need to.

Mr. DOYLE. I know in light of the polar vortex at PJM included additional capacity performance standards in their markets. Do you think that they properly value baseload power?

Ms. LAFLEUR. Well, we do have a rehearing pending, but I voted for the order and strongly supported the early order because I thought that it was a fuel-neutral way to define what reliability meant in a way that, yes, it has an impact on baseload power, but it was defined in a neutral and fair way. So I supported that order. Now we are starting to see the results, and we will be looking very closely as it is implemented.

Mr. DOYLE. And since the adoption of those reforms, have you seen any adverse effect on renewables, demand response, energy efficiency, or any other non-baseload products in PJM?

Ms. LAFLEUR. Well, there has only been one transitional auction run so far, but no.

Mr. DOYLE. I want to talk briefly, too, about cybersecurity, because I believe that is very important, too. And, Commissioner, you have mentioned the growing importance of that and how this presents a relatively new challenge for FERC. You said that these issues present different challenges and continue to say, in many cases, we don't have the benefit of decades of experience to draw upon. Well,

I am proud to point out that we do have decades of experience in Western Pennsylvania, particularly at Carnegie Mellon University CyLab, which is a global leader in this field. And to what extent can FERC grow and develop relationships with institutions like CyLab to ensure our grid remains secure?

Ms. LAFLEUR. Well, institutes like Carnegie Mellon are doing critically important work. And we do have an office of energy infrastructure security. They don't work on standards, but they work on collaborative relationships with universities, industry, and other agencies. And we would welcome more engagement with Carnegie Mellon. One of the things that is going on at the university level that I think is so critical right now is designing parts of the grid to build in more resilience on the front end. So we will get away from standards and retrofitting and really building the grid better. That is where the future lies.

Mr. DOYLE. Thank you, Mr. Chairman. I yield back.

Mr. WHITFIELD. Gentleman yields back.

At this time, the chair recognizes the gentleman from Mississippi, Mr. Harper, for 5 minutes.

Mr. HARPER. Thank you, Mr. Chairman. And thanks to each of you for being here and the work that you are doing. Chairman Bay, if I may ask you, many retail tariffs allow net metering of consumption of electric power by end use customers against on-site generating sources. In particular, we are seeing a proliferation of these on-site rooftop solar arrays by commercial and residential retail customers. The cost of distribution grid and transmission grid are interconnected, and both constitute the stream of interstate commerce. Should FERC exert jurisdiction over net metering arrangements in any respect?

Mr. BAY. The Commission issued an order in 2009, Congressman Harper, called Sun Edison, in which the Commission ruled that rooftop solar was not subject to FERC's jurisdiction over wholesale

markets as long as, during the relevant billing period, the person who owned the rooftop facility or unit was a net user, not a net seller of energy. And so that has been the line that FERC has drawn in its order. And I think it is important to note that that order, as a result, respects traditional state authority in this area. One concern that I think some would have were FERC to go further, would be a fairly dramatic preemption of state authority by FERC. And so, I think that poses some real questions about where you want to draw that line regarding the allocation of authority between a Federal Government and the states.

Mr. HARPER. Yes, sir. You know, of course, technically, you could argue that these net metering arrangements constitute a wholesale sale. And wholesale sales are expressly identified in the Federal Power Act as being FERC jurisdictional. So with that, why isn't FERC exerting jurisdiction over them?

Mr. BAY. Well, as I said, there is that decision from 2009, Sun Edison, which is the controlling FERC precedent now.

Mr. HARPER. Right. Has there been any thought on revisiting that?

Mr. BAY. Well, certainly, I have heard rumors that we may be receiving a complaint from different entities in industry regarding this very issue. But when you look at the Federal Power Act, the purpose of it, when Congress passed it decades ago, was to ensure competition in the markets, and to ensure that rates remain just and reasonable. And so, to my mind, it is not clear that when Congress passed this law, it intended some individual who has a rooftop solar unit to be viewed as a utility within the meaning of the Federal Power Act, and to be subject to Federal regulation.

And I think the further argument can be made that those kinds of units, far from impeding competition, are actually furthering it. So I think that there are a number of arguments there, not only based on the language and the history of the Act, but also based on a traditional recognition of state sovereignty in the area.

Mr. HARPER. Chairman Bay, I appreciate your insight on that. But, while a companion memorandum of understanding to the final Clean Power Plan rule outlines conferencing powers between the EPA, FERC, and DOE, neither that Memorandum of Understanding nor the final rule provide for a formal role or process for the Commission to carry out its statutory duty to maintain reliability. As a practical matter, how will the Commission actually ensure reliability as the CPP is implemented? And what will the Commission's role be in the event reliability and environmental regulations conflict?

Mr. BAY. Thank you for the question, Congressman Harper. One of our core responsibilities is reliability. And we are going to remain very engaged on reliability issues and any potential reliability issues relating to the Clean Power Plan. So we have already entered into this agreement with the DOE and EPA to have staff meet on a quarterly basis. As I indicated, staff has already met. And we are going to be monitoring what happens during the process. And also a potential resource, if States have questions of us, with respect to their plans. And as Commissioner Honorable noted, if necessary, we will hold technical conferences and do other follow-

up. But I want to assure you that we are very engaged on this issue.

Mr. HARPER. Do you think reliability may become subject to litigated outcomes?

Mr. BAY. Not clear to me since there is a reliability safety valve, and there is basically this glide path towards compliance. So we will have to see what happens.

Mr. HARPER. Thank you. And I appreciate that very much, Chairman Bay, and I yield back.

Mr. WHITFIELD. The gentleman yields back. At this time, the chair recognizes the gentleman from New York, Mr. Tonko, for 5 minutes.

Mr. TONKO. Thank you, Mr. Chair. I know numerous Members of the House and Senate have expressed their concerns with the pipeline permitting process. And, Mr. Chair, your testimony states that there is a need for more natural gas pipeline infrastructure. I don't necessarily disagree, but I do know many communities to which these pipelines pass have legitimate concerns about safety, noise, and air and water pollution from construction and the operation of those associated facilities.

And I know Commissioner Clark's testimony mentions a "just say no" attitude to any new project. That might be the case for some, but there are many, many people that have legitimate concerns and believe the public has been shut out of the process. So, Mr. Chair, can you explain FERC's public comment process for pipeline siting?

Mr. BAY. Thank you for the question, Congressman Tonko. FERC tries to provide a tremendous amount of process to stakeholders who could have an interest in a pipeline project. And so, throughout the process, whether it is pre-filing when scoping meetings are being held, or even after a filing has been made by the project developer, we welcome comments from the public. And so, there are many ways that people can get those comments to us. They can get those comments to us at the meetings, the scoping meetings that are held. But they can also send us written comments as well. And those comments will be made part of the record.

But it is very important for us to hear from members of the public who have an interest in the project, whether they are for it or against it, and for us to consider those comments when we evaluate the project.

Mr. TONKO. And just specifically, how does FERC proactively conduct its outreach to affected communities?

Mr. BAY. One thing that we do is to provide notice of the scoping meetings that we hold. And so those notices go out to communities along the path of the pipeline. They typically last for several hours. There is a court reporter there. The meeting can be transcribed. So that is one of the ways we get notice to the public. But certainly, throughout this process, staff tries to make clear to the public that their comments are welcomed, and that they can submit those comments to FERC for FERC's consideration.

Mr. TONKO. And then how are comments from Federal, state, and local officials, as well as the general public considered, particularly concerning the request to extend those deadlines that are associated with the review process?

Mr. BAY. So we certainly consider the requests of other officials as well, including state officials; and we then decide, when we get those requests, whether or not more time is warranted. I should note that even if a formal window has closed with respect to some stage of the processing of an application, if a member of the public submits a comment, that can still be made part of the record. So it is not like the door is slammed shut on someone.

Mr. TONKO. And have you found engaging local stakeholders to be productive in determining the appropriateness of a project or its scope?

Mr. BAY. I think it is critical that we engage with local stakeholders. And one of the things that we have also done is to publish a best practices manual for pipelines. And one of the things that we do in this manual is to encourage them to do the outreach to the communities along the path of the pipeline. That it is very important, in other words, for the pipeline to start to develop a relationship with the members of the public who could be impacted by the infrastructure.

Mr. TONKO. And when a project is changed, such as being rerouted to pass through different communities, does FERC make an effort to extend the public comment period and engage newly impacted people?

Mr. BAY. It probably depends upon the stage of the process when that change is occurring. Many changes can actually occur during a pre-filing process. And so there might be an opportunity there for the public to provide comment. I might have to talk to staff and get back to you on that one, Congressman Tonko, so that I can explain in a more specific way how the record can be developed. So I would be happy to do that. I can tell you, though, that even when we issue a certificate, there are dozens of conditions that are attached to the certificate. And these conditions are intended to remediate any potential impact from the pipeline.

Mr. TONKO. And when any of that new information is released late in the scoping process, do you believe it warrants more time for public comments and analysis?

Mr. BAY. I think it depends upon what the development is. But certainly, again, we welcome comments from affected stakeholders.

Mr. TONKO. I thank you, Mr. Chair. I yield back, Mr. Chair.

Mr. Whitfield. The chair, at this time, recognizes the gentleman from West Virginia, Mr. McKinley, for 5 minutes.

Mr. MCKINLEY. Thank you, Mr. Chairman. I guess to understand FERC, you have to understand how we got here, what are the issues that you have to face. And I am looking back on just globally with what has been said over the years, and certainly being said in Paris today and in the next few weeks. Because all of this sets the tone for the issues that you have to face. And I look back at some of the quotes that have been used over the years. People have said things like that the IPCC, one of the lead authors said, on energy, he said that, We must clearly, must redistribute, de facto, the world's wealth by climate policy. Then you have a former Canadian minister who said that, that no matter, this science of global warming is all phony. Climate change provides the greatest opportunity to bring about justice and equality in the world.

Or then we go to, at the Earth Climate Summit down in Rio is that, we may get to a point where the only way of saving the world will be for the industrialized civilization to collapse.

That sets the stage, then, for this administration and the EPA to be emboldened to enact a lot of regulations because they are drinking the Kool-Aid. So what we have here is they have moved on this. And as a result, I feel sorry for you at FERC because, I think primarily, you are just cleaning up after someone else. It doesn't come across to me as you have a seat at the table on our national energy policy. You are just having to implement what someone else has done, how they have been influenced by the global community. You remind me of Captain Smith on the Titanic, just managing a sinking ship. So I am wondering, given that that is the attitude all these regulations, and I can remember sitting here just a few years ago when Commissioner Moeller made the remark that if we don't do something to replace the coal-fired power plants that have been shut down across America, his quote was, "The new Federal environmental regulations could lead to rolling blackouts in Midwest by the summer of 2016, unless action is taken to boost reserve generating capacity."

I don't think we are doing anything on that. And 2016 is just around the corner. And then I look at your own policy statement that says that you are to regulate reasonable cost, at reasonable cost. I live in a state that 98 percent of the power is generated from coal. And because of the regulations and the closure of seven power plants, and ultimately more gigawatts of power, we are already experiencing a 47 percent rate hike on utilities. How is that reasonable? I think you failed. But maybe you failed, because I don't know that you have a seat at the table.

So I guess it would go back to, Commissioner Clark, how would you respond? Where are we building the coal-fired power plants? How are we going to reject this globalization that is going on and the attitude that has got us to the point that we are afraid to burn coal, we are afraid to burn gas?

Mr. CLARK. Congressman, as I indicated in my testimony, I think the Clean Power Plan 111(d) regulations certainly put regulators at both the State and Federal level in a very precarious position, which is that while it is not being promulgated by FERC or by a state public utility commission, most of the potential negative outcomes that could be related to it, whether it is matter of affordability or reliability in that state, all directly fall on our shoulders because those are the areas that we have responsibility over. And we know if the lights go out, or if costs are to spiral out of control, it will be public utility commissions at the state level, and FERC at the Federal level that will be answering those questions. So certainly, it creates challenges for us.

With regard to the concern about cost, I think in certain states, it is something that is a very real concern to have. It is one that I have as a North Dakotan. I indicated in my testimony that our state health department who is putting together our CIP estimates that if we were to enter a carbon credit trading program in North Dakota, it would be a \$400 to \$450 million annual tag. It is an estimate. It could be more; it could be less. But that is the figure that

they are using in a state of about 750,000 people. That is, obviously, a huge impact. So these are all concerns that are legitimate.

Mr. MCKINLEY. OK. Mr. Chairman, in the time I have left, what are we doing? What is FERC doing about authorizing more power plants to be constructed or was Moeller wrong?

Mr. BAY. Under the Federal Power Act, we don't have the authority to order the construction of new power plants. And under the Federal Power Act, FERC has always taken the position that it has to be resource neutral. But what we have tried to do is to improve the efficiency of the energy markets and the capacity markets so that they send the right signal to resources. And so that is where we have focused our attention, while also, always making reliability a priority. Mr. Whitfield. The gentleman's time has expired.

At this time, we recognize the gentlelady from Florida, Ms. Castor, for 5 minutes.

Ms. CASTOR. Thank you very much, Mr. Chairman. And good morning and thank you all for being here.

The former FERC Chair, John Wellinghoff, recently raised a concern over the very significant investments in natural gas resources by utilities. He said that these huge investments are happening at a time when battery storage and renewable resources appear to be growing. And that such significant, maybe even unbalanced investments in gas resources could put customers at risk, the folks we represent back home, for future—our neighbors could be on the hook for these investments.

You can't argue with the fact natural gas prices have remained very low. This has been a benefit. But Mr. Wellinghoff warned that the falling cost of renewable energy and energy storage could outpace cheap gas in the future. He called it very risky for consumers. And some utility leaders have echoed this concern. Chairman Bay, you just talked about how FERC has a responsibility to look at the energy markets. What is FERC's view, especially now with the incentives of the Clean Power Plan to reduce carbon pollution?

Mr. BAY. FERC has relied upon economic signals from the market to determine whether or not additional gas infrastructure is needed. And one of the ways we evaluate that is when a project developer holds an open season, we look to see whether or not the capacity that would be provided by the pipeline is subscribed, whether there are precedent agreements.

And so that can be a pretty clear signal as to whether or not the market thinks that that capacity is necessary. But it is important to note that it is the market that is driving these decisions. So it is not like ratepayers are necessarily on the hook for the contracts that might be entered into with the gas pipelines. And so that does, I think, provide some protection to consumers. And if the payoff time is quick enough on this pipeline, and the investment, I think that that investment in the pipeline can be a benefit to consumers. It really depends upon the capacity constraints in a given region in the country.

Ms. CASTOR. And furthermore, on consumer protection and demand response, traditionally, demand response was viewed as applicable to retail electricity policies and, therefore, within the jurisdiction of the state public utility commissions. However, as elec-

tricity markets evolved in the wake of the Energy Policy Act of 2005, demand response began to evolve into a wholesale issue, and, accordingly, FERC issued Order 745 which attempted to deal with compensation for demand response offered at wholesale. If you are a consumer out there, the benefits are quite robust. And for states now under Clean Power Plan, reduced short-term electricity costs, avoid the need for more investments in generation transmission of very expensive plants, you have to build, and bring environmental benefits.

Now, the order was challenged. It was argued before the U.S. Supreme Court. Chairman Bay, you have a very distinguished legal career. Did you attend the oral argument at the Supreme Court?

Mr. BAY. Yes, I did, Congresswoman Castor. Actually, I think every member of the—

Ms. CASTOR. Ah, everyone did. Isn't it interesting to—you should do that if you are ever here in Washington. Please go to an oral argument. It is fascinating. But can you read the tea leaves for us and give us what the outlook is? I know one Justice had to recuse himself. So what is your expert analysis of the Court?

Mr. BAY. You are right. Justice Alito recused himself. Eight members of the court will be deciding the issue. If there is a tie, then the decision of the D.C. Circuit stands. I think it is really impossible to read the tea leaves. I have to confess—

Ms. CASTOR. I knew you were going to say that.

Mr. BAY. I have to confess to you, though, Congresswoman Castor, that every time I have ever tried to read the tea leaves, I get it wrong. So probably, if I ventured an opinion today, you would do well to bet on exactly—

Ms. CASTOR. So could you go through—there are a couple of potential outcomes. Could you run through those quickly? I mean, the awful thing would be if FERC does not have—if we don't continue to promote demand response.

Mr. BAY. I think there are a number of possible outcomes. The Court could say that FERC does have jurisdiction. And it could also affirm the compensation that Order 745 allowed for demand response. So that is at one end of the spectrum. At the other end of the spectrum, the Court could either deadlock, which means the decision of the D.C. Circuit stands. Or the Court, a majority of the court, could decide that FERC lacks jurisdiction, in which case it doesn't reach the compensation issue.

Somewhere in between, the Court could say that FERC has jurisdiction but that its compensation scheme was not sufficiently explained and could remand on that particular issue. So there are a range of possible outcomes. My colleague, Commissioner LaFleur, likes to cite to Yogi Berra for that famous saying that the difficulty with predicting the future is that it hasn't yet happened, and I have to confess to sharing Yogi Berra's sentiment in that regard.

Ms. CASTOR. Thank you very much.

Mr. WHITFIELD. Gentlelady's time has expired. At this time, recognize the gentleman from Illinois, Mr. Kinzinger, for 5 minutes.

Mr. KINZINGER. Thank you, Mr. Chairman. And thank you all for being here today and spending your morning with us. I am sure it is exciting.

Chairman Bay, as part of FERC's responsibility to oversee the reliability of the bulk power system, you recently approved new critical infrastructure protection standards to address physical threats and weaknesses of the grid. These standards are designed to enhance the grid's physical security, and reduce areas of vulnerability. In your mind, what more can and should be done to ensure the physical security and reliability of the grid?

Mr. BAY. Thank you for the question, Congressman. I have to say that Commissioner LaFleur and Commissioner Clark deserve a lot of credit for the physical security standard because they were on the Commission at the time that the Commission adopted it. And under Commissioner LaFleur's leadership, that standard was adopted. So I think that is a very important start. In addition, there are critical infrastructure protection standards that have been in place for some time now. We are up to version 5. The Commission is considering version 6. One of the things that we are looking at with respect to the CIP standards is GMD, the second stage of that particular standard, which would create a benchmark event, require utilities to assess their system against that benchmark event, and then come up with strategies to deal with any potential problems. So that is certainly something that we are looking at.

Another aspect of cybersecurity that we are looking at deals with the supply chain, and whether or not there should be a standard in that area. We had issued a notice of proposed rulemaking. And we have decided to do a technical conference on that issue. So we will be bringing in industry and we will be getting their views.

Mr. KINZINGER. OK. I might have to cut you off because I have two more quick questions, if you don't mind.

And in regards to the EPA's Clean Power Plan, what position would FERC take if it were asked to issue a declaratory order related to the reliability impacts of state plans and requests for the exercise of the reliability safety valve?

Mr. BAY. I guess I would want to know what the specific details were with that particular proposal. Under MATS, the EPA can request a technical opinion from FERC relating to the reliability issue that would be posed if a unit closed down. Under the reliability safety valve currently contemplated by the EPA's Clean Power Plan, there is no mechanism, no formal mechanism, requiring FERC input, although certainly we are happy to provide it if the EPA requests our views.

Mr. KINZINGER. So if you were asked to make a declaratory order, you would be willing to, or be open to working with them on that?

Mr. BAY. Yeah. I don't know that I would call it a declaratory order, but certainly, we could provide them with our technical views.

Mr. KINZINGER. OK. And then, Mr. Clark, recently you spoke on efforts at the state level to support nuclear power. Specifically, you pointed out that states that encourage the growth of nuclear power are going to end up with two different regulatory regimes that don't fit together very well. And that this is going to impact FERC and negatively impact how prices are formed in wholesale markets. If you want to expand on that, and also, doesn't a two-tier system

basically already exist since all clean resources, other than nuclear, have out-of-market payment subsidies and everything that impact their bid price?

Mr. CLARK. Thank you for the question. It is an excellent one. It often comes into play with regard to nuclear power, and it especially becomes a question and an issue with regard to the Clean Power Plan being out there because remember, the grid operates on a regional basis in terms of market signals that are sent, but states, state by state, have to meet their in-state requirements or will should the Clean Power Plan be upheld. So they are managing their fleet in a way that is sort of agnostic of the market itself. The concern with nuclear power is right now if you present a scenario where you have a restructured state, so it is a merchant generation state, you have high state renewable portfolio mandates, you have low cost natural gas that is the marginal unit and you have big nuclear investments, it is very difficult for that plant to stay open in that regard. So what it will cause states to do that have restructured is to probably, in some way, if they want to keep that nuclear plant open to meet their Clean Power Plan goals, it will probably cause them to, in some way, soft re-regulate utilities that they had previously restructured.

The concern is, if you end up in a market that, from a wholesale standpoint, has been set up to allow pure price signals to determine where investment dollars go and where investment decisions get made, you can reach a tipping point where there are so many out-of-market solutions that are being imposed on the market, that the market isn't creating the proper price signals that are needed.

Mr. KINZINGER. OK. Thank you. And from my district with four nuclear power plants, it is very important. So I yield back, Mr. Chairman.

Mr. WHITFIELD. The gentleman yields back. At this time the chair recognizes the gentleman from Iowa, Mr. Loeb sack, for 5 minutes.

Mr. LOEBSACK. Thank you, Mr. Chair. This has been an enlightening hearing. I really appreciate all of you being here today. The poor folks who are still here, they get to hear me talk about Iowa all the time, and how much wind energy we have in the State of Iowa. The last report was 28 ½ percent of our electricity comes from wind. It will probably be 30 or more by the end of this year. And we are pretty proud of that, I have to say.

I really think we have to move not only toward wind but solar, and go as far in that direction as we possibly can, recognizing that it is going to take some time, obviously, to get to a portfolio that I think would be more sustainable, be cleaner, be better for our environment, no question about it, and also would provide a lot of jobs, and has, in my state, and other states. But I have a question about reliability. I know we have all been talking about that today. And that seems to be the big issue out there in moving from fossil fuels to more sustainable energy. What specifically can we do? What measures have been taken, can be taken, as we make that transition, assuming, you know, that the Clean Power Plan, it is now, in fact, there and that we do implement that? What specifically can we do, Chairman Bay, when it comes to reliability?

And what specifically is being done at the present time? Mr. Bay. I think the main thing that we can do is to work closely, we at FERC, to work closely with the EPA, DOE, state regulators, NERC, the regional reliability entities, the RTOs, ISOs, industry. I think we just have to work very closely together, and to monitor the situation to see whether or not there are any potential reliability issues. And if so, what needs to be done to address them. I don't think that you necessarily need a new reliability standard or anything like that, but I think you take the standards that you do have and you make sure that they are being followed, and you make sure that you work well with others.

Mr. LOEBSACK. Did you want to say something, ma'am? I do have a question for you, Ms. LaFleur. Yeah. When we were talking about the grid, I have a real concern about the physical protection of the grid. Cyber is one thing, but actual physical protection of the grid is another thing entirely. We are a big country. It is very, very difficult, obviously, to protect the grid from some kind of attacks from someone abroad, domestic, whatever the case may be. But can you address that question?

Ms. LAFLEUR. Yes. I think the physical security of the grid is very important. I think the most frightening thing would be some kind of coordinated attack that was a physical attack or a systemic attack on different parts of the grid. I think that the standards that we have put in place, which require every transmission owner to identify the most critical facilities and then protect them are an important step. But I think beyond that, a lot of the protection has to come from how we build the grid. Building in more redundancy, so we kind of decriticalize those places so that a physical attack won't cause as much damage. And building in more standardization, so if something goes wrong, we can share transformers more rather than having to build a custom one in every place.

Mr. LOEBSACK. You are kind of answering my next question, which was building the grid better, that is what you mentioned earlier, that, specifically, is the kinds of things that you are talking about when you say building the grid better?

Ms. LAFLEUR. Yes. I think that is really the future, is to think about how do we build a more robust grid in a world where there are so many more security issues?

Mr. LOEBSACK. Right. Does anybody else want to weigh in on that particular issue on the grid? Did you want to say anything, Mr. Clark?

Mr. CLARK. I would second everything that Chairman Bay and Commissioner LaFleur have indicated. One of the—it occurred to me during one of the questions, something that I think the Commission can do in terms of reliability and integrating the renewables that you talked about is something that the Commission recently had a series of presentations on at one of our recent meetings, which is the issue of energy storage. If renewables are to be brought on in a way that really makes sense and makes them even more valuable, energy storage as a means of compensating for their inherent intermittency, is something that could be very important. So the Commission has been studying that.

Mr. LOEBSACK. I think that is a great idea. Thank you very much. Thank you, Mr. Chair. I yield back.

Mr. WHITFIELD. The gentleman's time has expired. At this time recognize the gentleman from Missouri, Mr. Long, for 5 minutes.

Mr. LONG. Thank you, Mr. Chairman. And I figured you were going to ask me where I am going after this hearing. And where I am going is down to the Rayburn Foyer to sign cards for our troops for the American Red Cross. And I would like to remind our other members of the committee that they can join me down there. So you just looked like you wanted to ask that question, Mr. Chairman.

Mr. WHITFIELD. I really appreciate your letting us know about that. Thank you.

Mr. LONG. Commissioner Clark, in referring to the EPA's carbon regulations, you mention in your testimony that there is a potential tension between the 111(d) rules and infrastructure, especially in the timeline for compliance and in potential for a large generation resource shift away from coal in order to comply. In my State of Missouri, for instance, we rely on 83 percent coal for our energy generation. My question is: What is FERC doing to help ensure that the reliability resource adequacy is maintained during this period of transition given the length of time needed to develop and implement infrastructure projects?

Mr. CLARK. Sure, Congressman. Thank you for the question. I think it comes forward in a number of different ways. As I indicated, the infrastructure challenge is a key one. So FERC needs to continue to do its work in terms of how we process those applications that are in front of us. In terms of the Clean Power Plan, I think it is going to be critically important for FERC to be actively involved with other stakeholders. Sometimes it is with the markets in a region that is very market-oriented; sometimes it is going to be close collaboration with states since those states have chosen to remain fully vertically integrated. But collaboration with those stakeholders is going to be absolute key.

I think we are going to need to do a lot of work with entities like NERC, who have technical expertise in terms of the operations of the grid. It needs to be under constant assessment, and we need to do that assessment as soon as we know what these those State Implementation plans look like, because until we know what the State Implementation plans and Federal Implementation Plans for those states that chose to go that route, until we know what they look like, we are kind of shooting in the dark here because we can't really model scenarios that are that open ended.

So I think after we begin to see what those look like, we will be able to do more substantive work. But I think it is something that we absolutely have to have a voice in given our technical expertise in both markets and reliability at FERC.

Mr. LONG. OK. Thank you. I found something else real interesting in your testimony. You also state that intervention in regulatory proceedings is trending towards "just say no," which is designed to block entire classes of infrastructure projects through a strategy of outright denial, or defeat through delay. Can you expand on that?

Mr. CLARK. Sure, Congressman. What I was noting is something we have talked a little bit about here this morning, which is the trend towards intervention that we typically didn't have in the

past, which is that certain resources, in and of themselves, you have intervenor groups that wish to block the entire development of that resource; not that they believe that there is a particular problem with a particular line, it is that they have a concern with all infrastructure and would like to see it blocked. But the challenge becomes in an era where it is quite clear, in my mind, that to meet environmental regulations, and where the market is going, in some cases, in an affordable, reliable manner, you are going to have to have the infrastructure. Dealing with that tension is going to be a challenge for Commissions at both the state and Federal level going forward. We want to ensure—

Mr. LONG. What kind of impact will it have on the Commissions?

Mr. CLARK. Well, from one standpoint, I think the Commissions, and we have seen this here at FERC, I think you probably have seen it at the state level as well, you have a lot more applications that are being put forward in terms of infrastructure needs. So you have more pending dockets. At the same time, you have more intervention and opposition to those dockets. It creates a challenge for commissions. Ultimately, if the infrastructure is blocked in total, it creates challenges for consumers because you don't have access to the otherwise affordable energy that you might have.

Mr. LONG. What type of projects are you talking about that—

Mr. CLARK. In the case, Congressman, of the electric sector, it can be transmission lines which are sited at the state level, although FERC has a lot of authority over interstate transmission, we don't site it. But the interstate transmission lines are often put up to accommodate renewables that have seen significant growth. In the case of interstate natural gas pipelines, it is because you have coal plants that are going off. And as of right now, the market signals indicate that in most cases you are building natural gas to replace the coal. So you need to hook up the new natural gas plant.

Sometimes it is because you have to have peaker units that tend to be natural gas, because they pair well with renewables, because they have fast ramping resources. So everywhere where there has been a transition to higher intermittent resources and more natural gas units, but you don't have the electric transmission lines and pipelines in place at the time that that transition is made, you end up with very high costs for consumers. It has been the case across the world where that has happened. It has been the case in certain regions of the country, as the chairman noted in his opening statement.

Mr. LONG. OK. I see my time has expired, Mr. Chairman. I yield back.

Mr. WHITFIELD. The gentleman yields back. At this time the chair recognizes the gentleman from Vermont, Mr. Welch, for 5 minutes.

Mr. WELCH. Thank you very much, Mr. Chairman. I have got two questions, one relating to renewables, and then the other about how we pay for natural gas infrastructure. By the way, what you were just saying about the "just say no," I mean, it really does sort of have an element of public participation, whether it is about coal plants or it is even about solar. So we in Vermont, have a lot of renewables. But the siting issues are oftentimes very, very con-

troversial. So it is something that we have to wrestle with independent of what that power source is.

And the chairman indicated in his opening statement that the whole array of power sources, from coal to renewables, is a big deal. And depending on what your State mixes, it really has a significant impact on what you think is the proper approach on infrastructure.

In Vermont, we have had a long tradition of utility-supported renewables. In fact, Green Mountain Power, our major utility, has been the leader in this. Efficiency has played a major role, again, with the support of our major utilities, and demand response, obviously.

So I will ask first, Mr. Bay and Mr. Clark, in respect to infrastructure planning, where does that fit in to your scheme? Because the decisions that are made about an infrastructure decision really do have an impact on the power that can be deployed with the benefit of that. I will start with you, Mr. Bay. And just quickly on it, because we don't have much time.

Mr. BAY. Sure. I think that is an important question, Congressman Welch. States obviously engage in integrated resource planning. FERC itself does not. And FERC has always taken the position that it should be resource neutral under the Federal Power Act. So as a matter of choice, we have not tried to evaluate or to pick which resources should prevail in a market.

Mr. WELCH. Right. But there is a practical issue. This is something we are debating in Vermont. If you put in a major infrastructure item, it is going to then drive power decisions to that. So how do you find that balance? By the way, I want to say thank you to Member Honorable for coming to Vermont. We were delighted to have you up there. I mean, can you comment on that?

Ms. HONORABLE. Certainly. And great to see you again, Congressman Welch. It goes back to our embracing fuel diversity while we recognize we need to move toward a cleaner and more efficient energy infrastructure, for all of the reasons that have been discussed, to ensure reliability, diversity, energy security.

Mr. WELCH. Go ahead. I only have a couple minutes. I didn't mean to interrupt, but thank you.

Let me get to financing of natural gas infrastructure by electric ratepayers. We have had a lot of discussion in New England about natural gas supplies. Traditionally, it has been addressed and paid for by the merchant generators. Now there is a move among some to suggest that be spread out across all electric rate customers.

Obviously that would have a significant impact on energy markets. What is FERC's view on this? I will ask you, Mr. Clark, first. And thank you all for your work and your testimony.

Mr. CLARK. Sure, Congressman. Thank you for the question. I understand this has undergone a great deal of debate in New England, as you have certain states especially that have a concern for getting more natural gas access to natural gas infrastructure. As I understand it, the New England states originally had through NEPKA or NESCOE, the State council, some thoughts about potentially building into ISO New England tariffs the cost of the build-out of natural gas. They came in and talked with each of us individually about that—well, I didn't prejudge any matter. I think

that there are probably some challenges to that type of approach. I understand in recent months, New England governors have gone back, taken a relook at that, and are now not planning that particular approach, but are looking at potentially financing pipelines through the state authority that each of the states still retain over their load-serving entities.

I am interested in seeing how that plays out, in addition to their authority that they have over the natural gas distribution companies. So it is a little bit different approach. It hasn't been presented to the Commission yet. I am interested in learning about it. I think that that stateside approach probably has more opportunity to be successful than what—

Mr. WELCH. Commissioner LaFleur, do you have anything to add? And then my time is up. So you get the last word.

Ms. LAFLEUR. I agree with what Commissioner Clark said. This has arisen in New England, as you know, because there is tremendous pipeline constraints there. And the way the markets are structured, it is difficult for any merchant generator to commit to firm capacity. I believe the issue is raised indirectly in the Kinder Morgan pipeline that has been filed. And there is another one that is in pre-filing that will raise it more directly. While not prejudging it, I would seek to be as flexible as we can under our authority to try to find a way to accommodate something a region is trying to do, but it would have to be lawful. That is why the transmission solution has been turned away from.

Mr. WHITFIELD. At this time, the chair recognizes the gentlelady from North Carolina, Mrs. Ellmers, for 5 minutes.

Mrs. ELLMERS. Thank you, Mr. Chairman and Ranking Member Rush, for holding this hearing today so that we can continue our oversight. And thank you, panel. Commissioners, thank you so much for being with us today. As co-chair of the Grid Innovation Caucus, I look forward to hearing from each of you regarding the threats that the Clean Power Plan poses to affordable and reliable electricity, as well as the path forward to securing our grid, as well as modernizing our Nation's infrastructure, energy infrastructure.

Chairman Bay, I would like to start with you. I have a question regarding cybersecurity. Currently, the electric sector has mandatory cyber asset and incident reporting requirements through FERC, NRC, and DOE regulations. Chairman Bay, do you think FERC has sufficient authority over cybersecurity?

Mr. BAY. I think we do at this time, while recognizing that there is always more work to be done. So we are up to CIP version 5, and we are considering CIP version 6. There are additional standards that we are examining right now. A lot of work has happened, but there will always be more work that we have to do given the nature of the threat.

Mrs. ELLMERS. Do you believe that FERC needs help with your statutory mandate to protect the bulk power system with cyber threats and harm?

Mr. BAY. I should note one caveat. There should be emergency cyber authority. So thank you for that follow-up question. I understand that the House is addressing this very issue. That emergency authority does not need to reside with FERC. It could reside elsewhere in the Federal Government, but someone needs to have it.

The other suggestion I would make, and again, the House legislation considers this issue, is whether or not FOIA rules should apply to information that is shared between industry and government and vice versa. I think a fix there could be very helpful as well.

Mrs. ELLMERS. Thank you very much, sir.

Commissioner Honorable, I have a question for you. Last year, NARUC approved a resolution seeking to “preserve states’ authority to decide the type, amount, and timing of new or existing generation facilities that will be constructed or maintained within the state to achieve legitimate state policy objectives.” Then it goes on to say “to safeguard and guarantee states’ continued right to operate programs to procure new generation or maintain existing generation for reliability, affordability, and environmental purposes.”

Does the EPA’s Clean Power Plan impact any of these areas which NARUC has expressly resolved to preserve?

Ms. HONORABLE. Thank you for the question, Congresswoman. I certainly think this will play out. Clearly, the EPA endeavored to provide the states with flexibility. I served as NARUC president during that time that the resolution evolved, and that was very important and continues to be very important that the states maintain control, and I support that, even in my current role.

I do believe that the states have the ability to plan their own resources. There is certainly a lot of opportunity to ensure fuel diversity and reliability as we move forward to a cleaner energy infrastructure.

Mrs. ELLMERS. Thank you so much. My last question is for Commissioner Clark, this has to do with some of the EPA rulemaking, and I am going to use an example. The reliability safety valve, though very well intended, is really only useful after the rule has gone into effect. Is this correct?

Mr. CLARK. Congresswoman, that is correct.

Mrs. ELLMERS. And that is wonderful, and we are happy that that safety net is there, except it is kind of after the fact, it is an afterthought. And these decisions are already being made by many of these companies in our states having to prepare. So in your opinion, do you believe that as far as the rulemaking for EPA goes, FERC should have a much earlier and much more formal role in the rulemaking process?

Mr. CLARK. Congresswoman, there is contemplated in what EPA issued, as a final rule, some sort of consultative process with regional planning authorities. I think FERC needs to ensure that we have a robust part in that particular project that will be undergone. So that would be answer number one. I think there is a second related part of your question that I might address which is this: There is a concern in states that will need to be moving forward potentially if this is upheld, that they get going on it rather soon. The problem is, I hope we don’t end up with a MATS-type situation, a mercury and air toxic standard situation, where you may have certain States make enormous investments in meeting a rule that ultimately, 3 of 5 years down the line, is vacated by the Supreme Court. I would, either through legislation or through litigation, that there at least be a pause in this so it doesn’t go into effect, and we don’t start having some of these large investments

being made and then have the states find out that the rule itself wasn't valid. I think that is a concern.

Mrs. ELLMERS. Thank you, sir, and I agree, and I have gone over my time. Thank you, Mr. Chairman, and thank you to our panel.

Mr. WHITFIELD. Thank you. At this time, the chair recognizes the gentleman from Maryland, Mr. Sarbanes, for 5 minutes.

Mr. SARBANES. Thank you, Mr. Chairman. I want to thank the commissioners for being here today. Your testimony has been very helpful. Commissioner Bay, it is a pretty straightforward question. There is, I think, bipartisan interest on this committee already reflected in some of the hearings we have held, and some of the markups on how to continue to increase the intelligence of our grid, if you will, kind of smart grid technologies, how we stimulate more thinking in that regard and advance those technologies.

And there is a recognition, obviously, that there is a major role to play in that on the part of states, also ratepayers can become a part of the equation, the private sector for sure, and that that advances all of our goals in terms of dealing with resilience and cybersecurity and distributed energy resources, giving customers more choice in how they relate to the grid, obviously going forward.

I am interested as well, and I know there are others on the committee; I think Congresswoman Ellmers and Congressman McNerney share this perspective in what, for example, the Department of Energy might be able to do by establishing some sort of grant opportunities, programs, collaborative initiatives that they could initiate with the states, and with other partners that come together.

So for example, utilities partnering with entities such as National Labs and universities, state and local governments where they are developing some of these advanced smart grid technologies, and benefiting with some support from the Department of Energy. I want to ask you to speak to whether that would be helpful and useful in continuing to push forward that effort on the smart grid?

Mr. BAY. Thank you for the question, Congressman Sarbanes. I think that is an important question that you are raising. Many of these developments, as you know, are very exciting and they are happening at the distribution level. And so I do think it is very important for Federal agencies, including the DOE and FERC, to work with state agencies and state authorities to see where we can be helpful.

My sense is that DOE will be more helpful than FERC in the sense that DOE does a lot of research and development, but FERC certainly can be helpful in incenting some of those technologies as well, not at the distribution level, but at the transmission level because of incentives that we can offer under section 219 of the Federal Power Act. But as Commissioner Clark noted, we just did a panel recently on energy storage, and a lot of exciting things are happening there with some analysts predicting that costs will drop another 50 percent over the next 5 years from 2015 to 2019. So, I guess, that is actually 4 years. So a lot of things are happening, and ultimately, they will impact both the transmission network as well as the distribution system.

Mr. SARBANES. Thank you. Actually, President Obama this morning, at his press conference in Paris, spoke about how goals were set on where the cost of certain kinds of power generation would be. And 2, 3 years ago, we set these targets and we have already exceeded them. It shows what happens when you get these synergies in place, and I think you are right to point to the opportunity for a number of different Federal agencies, like the Department of Energy and like FERC and others to collaborate in helping to stimulate that in partnership with states, with ratepayers, with the private sectors, so I appreciate your answer. Thank you very much and I yield back.

Mr. WHITFIELD. This time the chair recognizes the gentleman from Oklahoma, Mr. Mullin, for 5 minutes.

Mr. MULLIN. Thank you, Mr. Chairman. And commissioners, first of all, I want to thank you for your thorough review of the Grand Lake Dam Authority, GRDA, for granting the variance. It was very important to Oklahoma and to that area, so thank you. I really do appreciate that.

I would like to first start with an issue going on with the nuclear plants. Several nuclear plants that operate in the wholesale competitive markets have recently announced premature retirements for economic reasons. These plants tend to be highly reliable. Is FERC concerned about potential impacts of reliability of the electrical grid due to these retirements? Commissioner Bay, I might start with you on that.

Mr. BAY. So this is something that we are monitoring very closely. Certainly, we are aware of the news of some of the retirements of those plants, and, again, one of the things that we are doing is using our authority over the wholesale market to see whether or not more effective or efficient price signals can be sent, and that is both in the capacity market as well as in the energy market.

So that has been where we have been focusing our efforts. We can't—as I said, we don't pick winners in the energy markets. We try very hard to be resource-neutral. I believe we have to be under the Federal Power Act. With that being said, improved price signals, improved transparency can be helpful to all efficient resources.

Mr. MULLIN. One of the things that is going on, obviously, is with the coal-fired power plants coming down too; now we have nuclear plants coming down. And one area that we are lacking in is the ability to build new gas pipelines, too, to get some of these plants. We find, through the industry, very difficult to get the permits that are needed. And so, I will stick with you, Chairman Bay, for a little bit. Does FERC have the needed resources to handle these permitting issues? I mean, considering the reliability, we can only take so much off the grid before reliability becomes an issue. And being that we are already concerned with the alarming amount of electricity leaving our grid, surely there is a way that we can speed up this process.

Mr. BAY. So we are very much focusing on the issue of the resources that we have, that we devote to infrastructure project reviews. And one of the things that we have done in this past year is to increase the number of staff who are assigned to the division

that does that particular work. So this is something that we are watching very carefully.

Mr. MULLIN. Watching, Chairman, no offense here, but watching isn't actually engaging. We are going to speed this process up of the amount of electricity hitting our grid going backwards at a very alarming rate. And so watching it is watching a crash happen. I would like to try to use the word of being proactive and not reactive. And if I am hearing you correctly, what you are going to end up being is reactive.

Mr. BAY. I probably was not clear enough. We added more resources, so we created an additional branch of staff who are doing project reviews in the Office of Energy Projects. Having added those additional resources, we are continuing to monitor what happens, and as Commissioner Clark's testimony noted, actually more than 90 percent-plus of the projects that we receive are certificated within 1 year after receiving the application. So it is important for us not only to do our work in a thorough way, but also a timely way, and we are very much aware of that.

Mr. MULLIN. Is there a way that we can help you with this? Is there a resource that we can help you streamline? Is there a process that we can help engage in? I say "we" as those sitting up here on the committee.

Mr. BAY. I certainly would be interested in hearing the views of my colleagues on that particular question. But one thing we may be coming to you with for our next budget request is a request for more resources.

Mr. MULLIN. Money?

Mr. BAY. I think you could characterize it in that way in as far as the money results in our ability to hire more people.

Mr. MULLIN. I think all of that would come, too, with the idea of making sure we are being very responsible with the resources we have, that has already been given to FERC under the current circumstances. My time has run out, and Chairman, thank you so much for allowing me to ask these questions, and Chairman Bay, thank you for being very thoughtful with your answers.

Mr. WHITFIELD. At this time, the chair recognizes the gentleman from Virginia, Mr. Griffith, for 5 minutes.

Mr. GRIFFITH. Thank you very much, Mr. Chairman. I appreciate what you all do. I know it is a tough job. I will say we have some natural gas pipelines coming through my area, and earlier, Commissioner Clark indicated, and I think some of you all have touched on it as well, that there are folks who are saying that they just want to slow everything down in order to stop gas pipelines and other things. But I have a situation where I have got folks who may feel that way, but I have got a lot of folks who just want answers to questions, and while, in regard to the Mountain Valley Pipeline, certainly some of those issues were raised by the Mountain Valley Pipeline not contacting folks like the Roanoke County Board of Supervisors before announcing they were coming into the community and starting to do work.

But likewise, the Roanoke and New River Valley has a population of roughly 300,000, you have a pipeline coming through. West Virginia, they had four hearings; in Virginia, we had two. Only one was in the Roanoke Valley, New River Valley area di-

rectly. And so as a result of that, the Roanoke County Board of Supervisors requested an additional hearing.

I am not saying it would have been fun for your folks, but it would have been helpful, and likewise, because both Congressman Goodlatte and I thought that it was appropriate. We sent a letter saying we agree with them, and we would ask you to hold additional hearing. You signed the letter, Commissioner, saying yes, we can't do that. I think that does, sometimes, makes the problem a little bit worse. I know it is not easy, I know, as you just said to my colleague, you may need more resources because of what is going on. But a lot of my folks are reasonable people, but when they feel like they are not getting answers, they become more aggressive, and as a result of that, both Craig County and Roanoke County, and I am sure there were other factors, but one of the factors they both intervened in the process because they felt like this was the only way they could keep a finger on what was happening.

So I don't know there is anything you can comment on in that specific case, I just pointed out as a note.

I have got a lot to get over and not as much time as I would like, of course. The first regulations currently require the Agency to consider the use of existing right-of-ways, Commissioner Bay, Chairman Bay. What do you all do to make sure they actually look at existing right-of-ways, because we recently had a factory that brought in natural gas, and now, here we have another gas pipeline coming through generally the same area of Giles County, and then that is where the factory was.

What do you all do to make sure that they actually did look at using co-location possibilities, particularly when you are looking at—we have—my district has a lot of natural forest and the Appalachian Trail. So what do you all do in that regard? And if you could be quick, I would appreciate it.

Mr. BAY. Sure. During our review process, we examined the impact of the proposed route, but also alternatives. And so, if there is an existing right-of-way that is feasible, that can be very helpful, both to the company and to FERC in making a decision about whether or not to certificate the project. So it certainly is a factor we take into account.

Mr. GRIFFITH. So if folks in Roanoke County, Giles County, Craig County think that there is a better path that would be co-located, they should let you know, is that what you are telling us?

Mr. BAY. I should say that that is an option to be considered. In some cases, it is not easy to co-locate two pipelines where they are side by side, that can present its own challenges.

Mr. GRIFFITH. And I recognize that and appreciate that. I am going to switch gears on you. I am concerned with grid reliability; I am concerned with the problems we had with MATS, when several facilities in my district were closed down just before the Supreme Court ruled that they didn't do it right at the EPA. I am concerned that you all don't get noticed under the Clean Power Plan for interaction about what is going to happen when the plants close down. These are great concerns. But I have one that may not seem as big, but a number of my colleagues have touched on the

grid reliability issues, and that is the shore issues related to lakes where there are hydropower facilities and plants.

And I am concerned about private property rights. And I can't speak for any other State, but I have several of these located in or near my district, and as many of the members of the committee know, I am a recovering attorney, I used to be a small-town country lawyer, and I have looked at the deeds. So one of things I have that I don't know that you all take into consideration, not only do I think folks ought to be able to use the lakes for recreational purposes, but I think there may actually be a taking that you all are unaware of, because in some of those deeds that I had occasion to look at over the course of 28 years of private practice, the power company didn't get the land under the water. They only got the right to flood. And in that case, under Virginia law, you extend those property lines out.

So if you come in and you say somebody can't build a dock, you are actually telling them they can't build a dock on their property, which I would think is a taking. I don't know if you all are aware of that. I don't expect an answer today, but could you look into that for me and see if you all are aware of that issue, and whether or not—how that impacts your requirements on the shoreline, because that is where people are very, very concerned, and I am concerned that there may be some liability for the Federal Government there that people aren't really aware of. I have seen the deeds written three different ways, two of them you all are in control, one of them you aren't.

So I just raise that for your attention. Let's go back to grid reliability now that I have raised that issue in regard to the shore, and I think it is very important people be able to access big money generator in our area where we are losing lots of jobs. I am already over. I thought I had 30 more seconds. Thank you, Mr. Chairman. I appreciate that and I yield back.

Mr. WHITFIELD. Thank you, Mr. Griffith. At this time, we recognize the gentleman from Ohio, Mr. Johnson, for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. And I want to thank the members of the panel for being with us today. Chairman Bay, or Commissioner LaFleur, consumers in our economy need reliable power, but some feel that FERC-approved market constructs may not be adequately compensating baseload power plants for the reliability attributes they bring to the grid. Therefore, some States in competitive markets, Ohio, New York and Illinois, for example, have begun to look at ways to consider options to preserve those baseload plants. So the question is, why do you think that these states find it necessary to step in to try and prevent the loss of these resources? Mr. Chairman.

Mr. BAY. States have the authority to engage in integrated resource planning, and as part of that planning, they often look at the generation next within the state. And if, in the competitive marketplace, certain resources are not doing well, then the state may feel a need to support certain kinds of units. One of the things that is happening right now is that gas is very, very cheap, in part, because of gas production in states like Ohio and Pennsylvania, and many other states around the United States. Last night I checked the futures contract price for natural gas on NYMEX, it

is, like, \$2.22 going into January, which is the heart of the heating season. It was at the \$2.20 range throughout the rest of the winter. And so, I think that is putting a lot of pressure on different resources across the United States.

The difficulty for FERC is that in markets, signals are being sent, right? And FERC does not view itself as having the authority under the FPA to pick the winners and losers for a marketplace.

Mr. JOHNSON. OK. Commissioner LaFleur, do you have a response?

Ms. LAFLEUR. I think that the biggest thing that we are doing is trying to work on the markets and make sure they compensate what it takes to keep light on for customers, including what baseload brings. And I believe the markets will protect reliability. It is difficult any time a power plant closes, and I used to work for a company that owned them, they had their huge economic drivers in their communities and all, and I think it is natural that a state would be concerned, but we are trying to do our job to make sure that where the power plants that are needed for reliability they don't close, because they are fairly paid.

Mr. JOHNSON. OK. Well, if reliability attributes and essential reliability services are being adequately compensated under current market rules, why do we see units that are essential to maintaining reliability leaving the market?

Ms. LAFLEUR. Well, it is a little bit of a circle, if they are essential to maintain reliability, and we still have reliability, they should not be closing. Some of the rules—

Mr. JOHNSON. But they are.

Ms. LAFLEUR. Well, some of the rules that we put in place are fairly new, and we just started to run the first couple of auctions, and I think we will see impacts. We did see baseload plants that previously didn't clear the auctions clear in new auctions under the new rules.

Mr. JOHNSON. Uh-huh. Commissioner Clark, I understand that under the Clean Power Plan, traditional state-based, least-cost resource planning will need to be replaced with carbon resource planning. What are the implications of such a shift? Would this environmental dispatch be more expensive than traditional economic dispatch, and if so, how so?

Mr. CLARK. It depends on how each of those states decide to implement their plans, it could be through some sort of credit trading program. It could be through some sort of, perhaps, environmental dispatch, which really would conflict with the market. So we don't know exactly how they will all be proposing to meet their standards. It probably does mean, in certain states, significant increased cost. I would say another impact—a similar question of what you asked Chairman Bay and Commissioner LaFleur is, I think 111(d) regulation, the potential of that is having an impact on some of these states that have restructured their marketplaces. They see nuclear units closed, even if they may not be needed for "reliability" in order to meet the Clean Power Plan they may be needed because it is very difficult to replace a large baseload unit that emits no carbon.

So, I think it is causing some of the states to go back to, as I said earlier, some form of soft reregulation of their marketplace,

simply to keep that plan open in the state, not for market efficiencies or for reliability, but to meet the constricts of the Clean Power Plan.

Mr. JOHNSON. OK. Well, thank you, Mr. Chairman. My time has expired.

Mr. WHITFIELD. The gentleman's time has expired.

That concludes the questions from the members. I want to thank the commissioners. Once again, we appreciate you being here with us, we look forward to continue to work with you.

Just one follow-up question I had, Chairman Bay. How many people are in your legal department? Do you know that number?

Mr. BAY. I believe there are about 180 people in the Office of General Counsel.

Mr. WHITFIELD. Do you know how many pending lawsuits are against FERC in which FERC is a defendant?

Mr. BAY. Do you mean in a regulatory context or—

Mr. WHITFIELD. I mean, the regulatory context has been exhausted and now we are in Federal court or Court of Appeals or Supreme Court.

Mr. BAY. I know that there are two matters pending before the Supreme Court. I can probably get this information for you. I don't know it off the top of my head. Certainly, every year there are commission orders that are appealed to the Court of Appeals.

Mr. WHITFIELD. Right.

Mr. BAY. And then there are some other matters that are being litigated at the district court level.

Mr. WHITFIELD. Ms. LaFleur?

Ms. LAFLEUR. Well, just to chime in, most of those 180 lawyers work on generating commission orders that are outgoing for the 6,000 cases we do a year, including there are ones that work on projects and ones that work on regs. There may be 10 to 20 people that work on our cases in the courts of appeal, something like a dozen. It is small group.

Mr. WHITFIELD. And what is the total budget for FERC at this time?

Mr. BAY. I believe FERC's total budget is a little over \$300 million.

Mr. WHITFIELD. OK, oK. Do you have anything else?

Mr. MCNERNEY. No.

Mr. WHITFIELD. Thank you all so much. We look forward to working with you and the hearing is adjourned. The record will be kept open for 10 days for additional materials. And thank you all once again.

[Whereupon, at 12:33 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]



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**Statement
Of the
AMERICAN PUBLIC POWER ASSOCIATION
Submitted to the
HOUSE COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENERGY AND POWER
For the December 1, 2015, hearing
“Oversight of the Federal Energy Regulatory Commission”
(Submitted December 15, 2015)**

The American Public Power Association (APPA) appreciates the opportunity to submit this statement for the record in relation to the House Subcommittee on Energy and Power hearing “Oversight of the Federal Energy Regulatory Commission.” The mission of the Federal Energy Regulatory Commission (FERC) is to “(a)ssist consumers in obtaining reliable, efficient and sustainable energy services at a reasonable cost through appropriate regulatory and market means.”¹ This statement will focus primarily on whether FERC-approved wholesale electricity markets and, in particular, restructured wholesale electricity markets operated by Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) (referred to collectively as “RTOs”), are efficient, provide energy services at a reasonable cost, and operate through appropriate regulations and markets.

APPA is the national service organization for the more than 2,000 not-for-profit, community-owned electric utilities in the U.S. Collectively, these utilities serve more than 48 million Americans in 49 states (all but Hawaii). APPA was created in 1940 as a nonprofit, non-partisan organization to advance the public policy interests of its members and their customers. We assist our members in providing reliable electric service at a reasonable price with appropriate environmental stewardship. Most public power utilities are owned by municipalities, with others owned by counties, public utility districts, and states. APPA members also include joint action agencies (state and regional entities formed by public power

¹ Federal Energy Regulatory Commission, Mission Statement (<http://www.ferc.gov/about/about.asp>) (last visited Dec. 10, 2015).

utilities to provide them wholesale power supply and other services) and state, regional, and local associations that have purposes similar to APPA.

Collectively, public power utilities deliver electricity to one of every seven electricity consumers. Public power utilities serve some of the nation's largest cities -- including Los Angeles, CA; San Antonio, TX; Austin, TX; Jacksonville, FL; and Memphis, TN. But most public power utilities serve communities of 10,000 people or less, such as the Green Island (NY) Power Authority (with 1,627 customers), the city of South Haven (MI)(with 9,052 customers), the village of Ludlow, VT (with 3,614 customers), and the Benton (KY) Electric Plant Board (with 4,844 customers).

Public power utilities produce roughly 10 percent of the electricity generated in the U.S. Annually, public power utilities generate roughly 170 million megawatt hours (MWhs) of electricity from coal (of 1,581 million MWhs generated from coal nationally); 77 million MWhs from natural gas (of 1,136 million MWhs generated from natural gas nationally); 63 million MWhs million from nuclear (of 789 million MWhs generated from nuclear nationally); 70 million MWhs from hydropower (of 263 million MWhs generated from hydropower nationally); and 8 million MWhs from other sources (of 276 million MWhs generated from other sources nationally) such as non- hydropower renewable energy like wind, solar, and geothermal. On the other hand, public power utilities supply approximately 15 percent of the electricity sold to end-users in the United States. To make up the difference between power generated and power sold, public power utilities purchase power at wholesale from other entities such as investor-owned utilities, independent power producers, rural electric cooperatives, federal power marketing administrations, and the Tennessee Valley Authority.

FERC and Public Power

Issues under FERC's purview directly affect the operations of public power utilities. Topics of particular interest to APPA in recent years have been: transmission planning, siting, and cost allocation; joint ownership of transmission facilities; increased use of incentive transmission rates; regulation of energy market derivatives; exercise of generation market power, mergers and affiliate transactions; and the operation of wholesale electricity markets. As noted above, this statement will focus primarily on the latter and, in particular, on restructured wholesale electricity markets operated by RTOs.

Public power utilities operating within the geographical boundaries of an RTO may, in theory, operate independently from the RTO, but in reality are largely captive to the RTO. First, due to legal constraints and policy considerations, public power utilities tend *not* to be "long" on power: i.e., they tend to generate less power than their customers consume. For example, in 2014 sales to ultimate customers by public power utilities totaled 573 million MWhs, but power generation by public power utilities totaled 411 million MWhs. Second, for many of the same legal and policy reasons, public power utilities tend not to own transmission facilities other than those necessary to connect their own generation and distribution facilities. As a result, most public power utilities rely on the bulk power grid for transmission of electric power needed to meet some portion of their service obligations. In RTO regions, it is almost always the case that the owners of the transmission facilities upon which a public power utility relies are members of

the RTO. In effect, the public power utility has no choice but to also become a customer of the RTO to obtain access to the bulk power transmission facilities under control of the RTO.

Hence, while public power utilities' participation in these markets may in theory be "voluntary," in practice it is not. With their participation effectively mandated and the RTO stakeholder processes in most regions heavily skewed toward the interests of large transmission and generation asset owners, many public power utilities' only choice is to work closely with Congress and FERC to seek needed reforms.

RTOs and Wholesale Electricity Markets

Under the Federal Power Act, an RTO is an entity with sufficient regional scope "to exercise operational or functional control of facilities used for the transmission of electric energy in interstate commerce; and...to ensure nondiscriminatory access to the facilities."² Through regulations and orders, FERC has broadened the role played by RTOs in ensuring the reliability of the grid – both in the short-term through dispatch of generation and in the longer term through ensuring that load-serving entities have sufficient resources are in place to serve expected electricity demand. As a result, RTO markets run not only real-time and day-ahead electric power markets, but in some cases, capacity markets which drive future resource decisions within their regions. (Capacity refers to a resource's ability to be ready to generate power or reduce demand at the command of the system operator.)

Many of the wholesale electricity markets that FERC has authorized are not in fact markets as that term is popularly used. Rather, they are highly complex administrative constructs with a myriad of applicable rules, which change with alarming frequency. APPA's concerns about RTO-operated markets include: extensive and frequently changing rules; volatile prices, which can rise to very high levels; and limited data transparency. Adding to APPA's concerns are the complex, time-consuming and resource intensive stakeholder processes and the lack of transparency in the governance processes of some of the RTOs. We also are concerned about FERC's apparent failure to consider the cumulative impact on customers – including residential, commercial, industrial, and institutional customers – of RTO market outcomes, stakeholder processes, and governance.

In certain RTOs, the stakeholder process is part of the problem that electric consumers and their representatives face. For-profit owners of substantial generation and transmission assets exercise substantial influence in some RTOs' stakeholder processes. These asset owners can, and in some cases have, shifted control of their assets from one RTO region to another (for example, leaving the Midcontinent Independent System Operator and joining the PJM Interconnection LLC) to maximize their financial returns on those assets. This threat has the practical effect of making RTOs very responsive to these entities' concerns. Other RTO participants, including smaller utilities embedded in the transmission systems of these large asset owners, do not have comparable tools to use to influence RTO market policy.

Moreover, large asset owners simply have more people and resources to devote to the stakeholder

² Federal Power Act, Section 3(27) (16 USC 793(27)).

processes. Given the large number of work groups, task forces, and committees that each RTO sponsors, it is simply harder for customer-side representatives to attend and participate in all relevant meetings, and to evaluate and understand the impacts of the proposals being made.

The most problematic of the RTO-operated markets are the capacity markets, and specifically the mandatory capacity markets that are operated by the RTOs in the East (the PJM Interconnection, ISO New England and parts of the New York ISO). These administrative constructs account for a substantial share of the total electricity costs consumers and businesses in these regions pay. Unfortunately for electric consumers, these mechanisms have not demonstrated that they can fully support a reliable and diverse supply of power and incent the building of new generation resources where they are most needed. Instead, these constructs have required consumers to pay billions of dollars in costs, with little concomitant benefit.

FERC says that the RTO capacity-market rules it has approved are “neutral” as to source of generation and so do not infringe on state-retained resource allocation authority. However, in some instances FERC-approved RTO market rules are so specific and so heavily weighted as to strongly bias the resource allocation outcome, i.e., capacity performance requirements that are much more feasible for coal, natural gas, or nuclear power generation to meet.

APPA agrees there needs to be a certain level of base-load generation (i.e., power generation that can be available at full output for an extended period as needed by the system operator to ensure reliable operations). It is also important that, within the RTOs, there are sufficient resources that can generate power during emergencies and provide necessary support to the system, such as frequency and voltage support. But it is important to ensure that “properly valuing” such resources through the “markets” does not equate to imposing unnecessarily high costs on consumers by over-compensating such resources. In fact, FERC has *not* required RTOs to demonstrate whether the costs of the market rules are justified by the benefits, or whether certain goals, such as resource adequacy, could be achieved by alternative mechanisms at a lower cost to consumers. In recent years, both the ISO New England and the PJM Interconnection have proposed increasingly costly rule changes in the name of enhancing and assuring reliability. Ironically, these increased costs have been proposed to address the problem that capacity providers have not always been available during system peak times; *i.e.*, despite having been paid in advance to provide capacity at all times. APPA agrees that such performance issues need to be addressed, but not with the costly and extensive rule changes these RTOs have proposed. Stakeholders sent Members of Congress in the PJM region a letter addressing one such proposal—PJM’s capacity performance proposal. The letter was signed by 14 public power utilities and associations (including APPA members), electric cooperatives, a group of large industrial customers, state commissions and consumer advocates. The letter explains that PJM’s capacity performance proposal “would dramatically increase electric costs without providing meaningful and necessary improvements in system reliability.”

Moreover, there is value in having a diverse fleet of resources. To the extent that RTO market rules over-compensate resources that can meet the criteria of providing continuous operation, such rules will discourage hydropower, non-hydropower renewables, and demand response. Yet those resources are

valuable components of an electricity resource portfolio, especially if electric utilities are going to be required by the EPA to reduce the greenhouse gas emissions associated with their power supplies.

Another concern with the capacity markets is that the “classic,” and historically successful, way to finance capital intensive investments is through long- term bilateral contracts that support financing by providing assured cost recovery and a predictable revenue stream. However, this model has been upended in these mandatory capacity markets, overseen by FERC. In addition, because new supply development increases competition, the primary beneficiaries of the capacity markets – incumbent owners of older, less efficient power plants – have sought and received approval from FERC for the RTOs to implement rules that create impediments to new supply. These changes to the capacity market rules, known as Minimum Offer Price Rules (“MOPRs”) or “buyer-side mitigation,” administratively impose floor prices on such new generation, and have weakened the ability of the states to make decisions on their energy future and of public power utilities to fulfill their obligation to provide reliable electric power at the lowest reasonable cost. To further exacerbate the concerns of public power utilities and others, the buyer side “market power” that FERC is attempting to mitigate has never been demonstrated to exist.

When the capacity markets were implemented, public power and cooperative utilities and a number of states carefully negotiated provisions that exempted self-supply and state-procured resources from such buyer-side mitigation. Unfortunately, FERC has since chosen to ignore these negotiated settlements, and to remove such exemptions. As a result, these local utilities face the potential for double cost exposure – the cost to construct a plant and a potential additional cost to buy the same power from the market if the mitigated offer price does not “clear” the relevant capacity auction – making it much more difficult and costly to finance such new resources.

The incorporation of such “buyer-side market power” rules reflect APPA’s broader concern that FERC often accepts market proposals from the incumbent generation owners that are aimed at maintaining their revenues and reducing competition – the exact opposite of how a robust, competitive market functions, and a shift away from the mandate under the Federal Power Act for FERC to ensure that wholesale market rates are “just and reasonable.” When formulating its positions, FERC frequently ignores the lack of evidence that the restructured markets operated by RTOs are actually markets in the first place or that they have provided sufficient benefits to consumers and the economy. FERC should take a more critical and holistic view of these markets, and pursue fundamental reforms that reduce the adverse impact on reliability and electric consumers, including removing mandatory requirements for participation in these capacity markets.

APPA has long recommended that the Eastern RTOs’ mandatory capacity constructs be phased out and replaced with voluntary, residual capacity markets, with primary resource procurement achieved through a portfolio of long-, medium- and short-term contracts and a diverse resource mix. In the event such an overhaul is not undertaken, APPA would propose the following interim steps:

- A) RTOs that have not yet implemented a mandatory capacity market should not move to do so without unanimous support by the states in the region; and

B) RTOs that have already adopted a mandatory capacity market should not impair (through rates, or rules, regulations, or practices affecting rates) the ability of a load-serving entity to meet its capacity obligations through a resource it owns, builds, controls, or for which it has a contract for capacity.

These reforms would go far in accomplishing many of the criteria that APPA supports here – including just and reasonable rates to consumers, diverse resources, continued reliability, improved governance, and due consideration of state and local resource decisions.

Baseload Generation

There is no doubt that the electric power generation is undergoing a sea change. Incumbent generators, however, hope to retain and expand on current wholesale capacity market rules to shield themselves from these changes. They argue that Congress must act to protect existing generation, at any cost, to protect electric power reliability. That is not correct.

First, reliability is not an issue spontaneously created in 2015, but has been of concern to electric power utilities since their creation. In fact, roughly half of the nation's public power utilities have been in operation for a century or longer and nine out of 10 have been in operation for at least 50 years. Reliability of service is absolutely core to their success -- and public power utilities were meeting their reliability obligations long before the RTOs invented capacity markets.

Second, market rules designed to shore up baseload generation are unlikely to promote new generation or to rescue existing, but non-economic power plants. These new rules, however, have succeeded in providing billions of dollars of windfall profits to incumbent generators. For example, a study of auctions conducted in the wake of new PJM Interconnection "performance requirement" rules shows an increase in electric capacity prices of \$7.3 billion over a three-year period for consumers in the Mid-Atlantic and Midwest states within the PJM Interconnection. But it is not clear whether there are any reliability benefits to justify these costs. For example, for the 2016/2017 delivery year, of the 95,097 MWs in cleared capacity, 90,850 MWs will be provided by resources that had already agreed to provide capacity in a prior auction at a lower price. Likewise, for the 2017/2018 delivery year, of the 112,000 of capacity cleared, 102,000 will be provided by resources that had already agreed to provide capacity in a prior auction at a lower price.

APPA understands the need to keep coal and nuclear power as part of a diverse fuel generation portfolio. However, the owners of such units should look outside RTOs, not inside RTOs, for the model for success. Three-quarters of the new coal plants completed in the past four years and all of the new nuclear plants recently completed or in progress have public power and/or rural electric cooperative utility funding under long-term agreements.

Five nuclear plants with capacity totaling 4,800 megawatts have retired or are scheduled for retirement. This includes the retirement of the San Onofre Nuclear Generating Station, Kewaunee Power Station, Crystal River Nuclear Plant, and Vermont Yankee Nuclear Power Plant, and the scheduled retirement of Oyster Creek Nuclear Generating Station at the end of 2019. Four of these five plants are located in

regional transmission organizations (RTOs) and two are in RTOs with the highly problematic mandatory capacity markets.

Another six plants have been publicly discussed by the owners as under the threat of retirement. All of these plants are located within RTOs, and four are in RTOs with mandatory capacity markets. They include Ginna Nuclear Generating Station, Byron Nuclear Generating Station, Clinton Nuclear Generating Station, Quad Cities Generating Station, the Fitzpatrick Nuclear Power Plant, and Davis-Besse Nuclear Power Station. Owners of these merchant plants are seeking supplemental revenue streams to be paid by ratepayers in addition to the payments received from RTO markets.

Conversely, of the five new nuclear reactors currently being developed at three sites, none are located within RTOs. These include Watts Bar Unit 3 at the Watts Bar Nuclear Plant, Vogtle 3 and Vogtle 4 at the Vogtle Electric Generating Plant, and VC Summer 2 and VC Summer 3 at the Virgil C. Summer Nuclear Generation Station. These new units will provide a total of 5,800 MW of capacity (about 5.5 percent of the nation's 104,000 in nuclear powered capacity). And, all have a large share of public power ownership and financing.

Over the past few years, as low natural gas prices have contributed to reduced earnings by nuclear generation and several plants have retired, owners of merchant nuclear capacity have been advocating for changes to the RTO-operated electricity markets to ensure that such facilities are "properly valued" by the markets. Essentially, these owners are asking for prices to be adjusted to reflect the value of certain attributes of nuclear power, such as its lack of emissions and round-the-clock electricity delivery. One area of recent activity by FERC involves price formation in the wholesale energy markets, as noted by FERC Chairman Norman Bay in response to questions in this hearing about retiring baseload facilities. Thus far, FERC activity in this arena has largely been confined to information gathering, although a recent proposal by FERC would increase the number of short-term electricity price spikes. APPA is concerned that while such market changes may increase the revenue earned by nuclear and coal plants, the lack of a careful approach to price formation may also produce windfall earnings for many generators that are not in danger of retirement and also impose excess costs on the economy. A much more targeted approach, employing bilateral contracts, is a better way to preserve needed baseload generation without excessive costs.

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
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December 17, 2015

The Honorable Norman C. Bay
Chairman
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Chairman Bay:

Thank you for appearing before the Subcommittee on Energy and Power on Tuesday, December 1, 2015, to testify at the hearing entitled "Oversight of the Federal Energy Regulatory Commission."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on January 7, 2016. Your responses should be mailed to Will Batson, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Will.Batson@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Ed Whitfield
Chairman
Subcommittee on Energy and Power

cc: The Honorable Bobby Rush, Ranking Member, Subcommittee on Energy and Power

Attachment

**QUESTIONS FOR THE RECORD
FOR
Chairman Norman C. Bay**

THE HONORABLE ED WHITFIELD

- 1. Regarding EPA's Clean Power Plan, what authority does FERC have to protect the electric grid if state plans make assumptions regarding the impact on grid reliability of their plans that are not well-supported? What authority does FERC have to protect the electric grid if EPA rejects a request for relief under the Reliability Safety Valve?**

Answer: While the Commission has certain authorities relevant to reliability, these authorities may or may not apply to the scenarios you describe, depending on the particular circumstances. Section 215 of the Federal Power Act (FPA) authorizes the Commission to approve, and oversee enforcement of, standards for the reliable operation of the bulk power system (BPS). These standards apply to BPS users, owners and operators. The Commission also has authority under FPA section 205 over the rates, terms and conditions of sales for resale and transmission by public utilities in interstate commerce. This authority has been used, for example, to provide compensation for the continued operation of facilities needed for reliability that otherwise might have been retired ("reliability-must-run" facilities), or to ensure that market prices are sufficient to elicit additional resources when needed. Section 202(c) of the FPA authorizes the Department of Energy (DOE) to require certain emergency actions such as the operation of a generating facility to meet an emergency caused by a shortage of electric energy or of facilities for the generation or transmission of electric energy. Notably, the Clean Power Plan requires states to consider the reliability implications of their plans, and the states have both the incentive and experience with using their authorities to help maintain electrical reliability. In addition, the Commission intends to monitor, by itself and in coordination with staff from EPA and DOE, efforts by the states to comply with the Clean Power Plan, in order to foresee and hopefully avoid these types of problems.

- 2. The Supreme Court heard arguments on FERC's appeal of Order 745, the compensation of demand response programs.**
- A. What is your view of FERC's jurisdiction over retail energy markets?**
- B. Under what circumstances do you believe FERC can assert authority over retail energy markets?**
- C. Is there a bright line between your authority and that of the states?**

Answer (A-C): The Commission regulates the energy, capacity, and ancillary services markets operated by Commission-jurisdictional regional transmission organizations and independent system operators. In section 1252(f) of the Energy Policy Act of 2005, Congress declared that it is the policy of the United States to eliminate unnecessary barriers to demand response participation in energy, capacity, and ancillary services markets. Section 1252(f) thus strongly suggests that Congress intended to encourage demand response participation in those markets

subject to the market rules approved by the Commission pursuant to sections 201, 205, and 206 of the FPA. The Commission's authority with respect to those markets is consistent with the states' authority with respect to retail sales of electricity as recognized by section 201 of the FPA. As a general matter, FERC does not have jurisdiction over the retail sale of electricity. With respect to the line of authority between the Commission and the states, the Supreme Court has recognized that "the landscape of the electric industry has changed since the enactment of the FPA, when the electricity universe was neatly divided into spheres of retail versus wholesale sales." *New York v. FERC*, 535 U.S. 1, 16 (2002) (internal quotation and citation omitted). See also *Oneok, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1601 (2015) (noting that the "clear division between areas of state and federal authority" in the "natural gas regulatory world" is no more than a "Platonic ideal").

- 3. FERC has recently begun to tackle reforming the energy markets as well as energy price formation concerns. On November 20, 2015, FERC directed each regional transmission organization (RTO) and independent system operator (ISO) to publicly provide information related to certain price formation issues. Specifically, FERC is seeking a report from each RTO/ISO regarding five price formation issues: (1) pricing of fast-start resources; (2) commitments to manage multiple contingencies; (3) look-ahead modeling; (4) uplift allocation; and (5) transparency.**

A. What do you hope to achieve with these reports?

Answer: As part of a broader price formation effort (discussed in detail in the response to question 5), the Commission recently asked each RTO and ISO to report on the five aforementioned issues because the Commission identified these as potential areas for reform. Recognizing that many RTOs and ISOs have already taken steps to address some of these five issues, the Commission nonetheless believes that additional improvements in these areas may enhance price formation in the RTOs/ISOs. In particular, the reports and comments on those reports from interested stakeholders will assist the Commission in identifying reforms on these five issues to improve incentives to maintain reliability, to facilitate accurate and transparent pricing, to reduce uplift, and for market participants to operate consistent with dispatch signals. These reports and associated stakeholder comments are important in building a record and providing the Commission with additional information to assist it in determining whether and what further action is necessary on the five issues. For instance, the reports and associated stakeholder comments will help the Commission determine whether any action that is warranted is most appropriate on a RTO/ISO-specific basis or on a more generic RTO/ISO-wide basis.

B. How quickly can we expect any market reforms to occur resulting from the reports?

Answer: Unfortunately, I cannot comment on the timing of any Commission action, but Commission staff expects to expeditiously review the reports (due February 2016) and the associated comments (due 30 days thereafter) to identify next steps. After obtaining this public input to build a record, I expect the Commission will conduct adequate review and discussion prior to undertaking any potential Commission action to ensure that any action that is warranted is appropriate and that unintended consequences are avoided.

C. Is there a sense of urgency to get the appropriate reforms in place?

Answer: As I stated at the hearing, one of my top priorities is to focus on the fundamentals in the competitive markets to continue to look for ways to improve the efficiency of the markets and to deliver greater value to consumers. Price formation is a key aspect of this effort. In addition to the reports discussed in response to question 3.A, the Commission began pursuing price formation reform with the issuance in September 2015 of a proposal to: (1) align real time settlement and dispatch intervals; and (2) implement shortage pricing for shortage events.

- 4. The participation of renewables in capacity markets – such as wind and solar – continues to grow spurred by subsidies and tax credits. In many capacity markets, these types of resources are exempted from buyer-side mitigation rules in their entirety or, if they are subject to any buyer-side mitigation measures, they are provided with generous exemptions. Does this situation pose a concern for the viability of capacity markets given that an increasing large share of the resource mix will be subsidized and be incentivized to bid below their actual costs of operations?**

Answer: The Commission has concluded, based on the specific circumstances in each region, that the participation of variable energy resources in capacity markets, subject to buyer-side mitigation measures, is appropriate. As an initial matter, the limitations on the capacity that variable energy resources – such as wind and solar – can provide are reflected in the capacity values assigned to these resources. For example, a new wind farm with nameplate capacity of 100 MW in the service territory of PJM can offer only 13 MW of capacity into PJM’s capacity market; its capacity value is adjusted by the effective average capacity factor for wind units (i.e., 13 percent). Furthermore, the entry of variable energy resources, and particularly those that offer into the capacity markets at a price of zero because they are state sponsored, and their possible distortion of capacity market prices can be mitigated through the market design parameters.¹ For example, ISO-New England considers these resources in the development of its sloped demand curve.

- 5. How is the Commission supporting accurate dispatch-based pricing and commitment, increasing transparency, and limiting out-of-market payments in the organized wholesale electricity markets?**

Answer: Last year, the Commission initiated proceedings into price formation for energy and ancillary services in the regional wholesale markets to promote reliability, facilitate accurate and transparent pricing, and ensure that rates are just and reasonable. The proceeding initiated with staff convening workshops and issuing reports, and invited comments on specific questions that arose from the workshops.

In September 2015, as part of its price formation initiative, the Commission issued a Notice of Proposed Rulemaking on Transaction Settlement Intervals and Shortage Pricing. Specifically, the Commission proposed that each RTO and ISO develop more granular transaction settlement periods, and that each RTO and ISO trigger shortage pricing for any

¹ See *ISO New England Inc. and New England Power Pool Participants Committee*, 147 FERC ¶ 61,173, at PP 78-88 (2014).

dispatch interval during which a shortage occurs. The objectives of the proposed rule are to improve price signals by better aligning prices with dispatch instructions and operating needs. Price signals that accurately reflect operating needs and system conditions will enhance incentives for resources to respond to dispatch instructions. In the long-term, I expect that more accurate price signals will help to encourage efficient investments in facilities and equipment, enabling reliable service, and fostering greater competition. Commission staff is currently reviewing the public comments received in response to the proposed rule.

In November 2015, the Commission took another step to address price formation by directing each RTO and ISO to submit reports on price formation in their energy and ancillary services markets (Order Directing Reports discussed in response to question 3). Each RTO and ISO is required to file a report addressing five price formation issues: pricing of fast-start resources, commitments to manage multiple contingencies, look-ahead modeling, uplift allocation, and transparency. The Commission is providing an opportunity for interested stakeholders to comment on these reports. In particular, the reports and associated stakeholder comments will assist the Commission in identifying reforms to improve incentives to maintain reliability, to facilitate accurate and transparent pricing, to reduce uplift, and for market participants to operate consistent with dispatch signals. Based on the reports and associated stakeholder comments submitted on these five price formation issues, the Commission will determine whether further market reforms are needed to improve price formation and enhance market competition.

The RTOs and ISOs also occasionally propose market reforms to support better price formation and the Commission when appropriate, approves such proposals. For instance, RTOs and ISOs have proposed market rules that provide strong incentives to build, maintain, and operate resources that can start and ramp up and down quickly. Such initiatives include those that encourage fast-ramping products and capacity performance mechanisms.

In addition to the price formation initiative, the Commission is continuing its long-term efforts to improve the accuracy and speed of the computer models used to determine unit commitment and dispatch. The Commission holds an annual software conference where many participants suggest new and improved methods of modeling RTO/ISO markets. Improvements to market software allow RTOs and ISOs to more realistically model the electric system and thus facilitate more efficient dispatch and unit commitment within the market software and reduce out-of-market payments.

Further, the Commission and its staff actively engage stakeholders through outreach and technical conferences to assess the functioning of the wholesale energy, ancillary services and capacity markets, and review rules associated with infrastructure development and coordination between the natural gas and electric energy industries.

6. In June of 2014, the Commission issued Opinion No. 531, which revised the Commission's method of determining base Returns on Equity (ROE) for electric transmission. This revised methodology is explicitly intended to restrain returns, keeping them in a narrower range of possible returns. In some cases, this revised methodology will eliminate some or all of the incentives that the Commission had approved for certain transmission projects only a few years ago. In approving this new policy, the Commission believed that the new policy would relieve uncertainty and promote needed investment in transmission.

A. Do you believe that restricting returns to lower ranges and eliminating previously approved incentives creates certainty for transmission investors and development?

Answer: As an initial matter, it is worth noting that Opinion No. 531 does not change Commission policy with respect to the treatment of incentive ROE adders. Rather, Opinion No. 531 follows existing Commission policy that a public utility's total ROE is capped at the upper end of the transmission owner's zone of reasonable returns, as determined by the Commission's discounted cash flow (DCF) methodology. In the 2006 order establishing transmission incentive ROE adders (Order No. 679), the Commission made clear that the ROE, inclusive of any incentive ROE adder, must be within the public utility's DCF-determined zone of reasonableness.

I believe that the DCF methodology set forth in Opinion No. 531 helps provide certainty to transmission investors regarding the determination of the base ROE and the zone of reasonableness by standardizing the methodology's inputs and clarifying the proxy group screening criteria. A clearly-defined process for determining ROEs provides investors with the increased certainty needed to support transmission development. Finally, I note that parties have reached uncontested settlements in approximately 80 percent of the recently pending proceedings involving base and incentive transmission ROEs.

B. Do you believe that there is a need for new transmission investment in the US? If so, do you believe that the new method of determining base returns, as well as other transmission policies (e.g., Order No. 1000) will promote timely investments in new transmission?

Answer: Without prejudging matters pertaining to any particular project, in general, I believe there is a need for new transmission investment in the United States. I further believe the new methodology for determining base returns, along with other transmission policies developed by the Commission, will promote timely investment in new transmission. But I also believe it is important for the Commission to review and assess the policy as it is put into practice to determine whether the policy should be revised in order to achieve its goals.]

C. Does the Commission have any means of evaluating the success or failure of its new transmission policies?

Answer: The Commission routinely evaluates its regulations and policies to ensure that they are achieving the intended goal; it typically does so through a process of notice and comment. For example, in 2007, the Commission issued Order No. 679 to establish by rule incentive-based rate

treatments for investment in electric transmission for the purpose of benefitting consumers by ensuring reliability and reducing the cost of delivered power by reducing transmission congestion. Approximately four years later, in May 2011, the Commission issued a Notice of Inquiry seeking public comment regarding the scope and implementation of the Commission's incentives policies. That effort resulted in the Commission's issuance of a policy statement to provide additional guidance with respect to certain aspects of its transmission incentives policies. Similarly, in 2005, the Commission embarked on reforms to its open access transmission policies (established in 1996), including the addition of requirements for open, transparent transmission planning. That undertaking culminated in a Final Rule issued in 2007 (Order No. 890). In 2010, acting on concerns that its transmission planning policies may not be achieving the intended goal, the Commission sought comment, through a Notice of Proposed Rulemaking, on potential changes to its transmission planning and cost allocation requirements. In 2011, FERC adopted a final rule on transmission planning and cost allocation (Order No. 1000).

In addition, Commission staff has embarked on an effort to identify and analyze six objective metrics to assess the impacts of the Commission's policies on timely and cost-effective transmission investment. The six metrics, outlined at the Commission's April 2015 open meeting, are: (1) load-weighted curtailment frequency; (2) RTO/ISO market price differential; (3) load-weighted circuit-miles; (4) load-weighted dollar investment; (5) circuit-miles per dollar invested; and (6) percentage of non-incumbent bids/proposals. Commission staff's analysis of these metrics is ongoing.

The Commission also requires, under the transmission incentives policy outlined in Order No. 679, that public utilities granted incentive-based treatments file reports detailing transmission project-level information on capital spending and the status of critical transmission projects.

7. Electric customers in New England saw enormous increases electric prices last winter. In one case, customers were subject to increases in electric rates of 37%. A major contributing factor to higher electricity prices along the East Coast is the lack of adequate pipeline infrastructure needed to carry natural gas supplies to homes and businesses in the region.

A. Do you believe that New England or the northeast more broadly needs new gas pipeline capacity? If so, what can the Commission do to promote support investment in new natural gas pipeline capacity?

Answer: As the electricity sector transitions to greater reliance on renewable energy and natural gas-fired generation, new pipeline and transmission infrastructure may need to be built and communication and coordination between the gas and electric industries may need to continue to improve. Under the Natural Gas Act (NGA), however, the Commission does not take a stance on whether regions generally need more pipeline capacity, nor does it establish plans for regional construction. Section 7(c) of the NGA requires the Commission to make a determination that the construction and operation of facilities for the transportation of natural gas subject to the Commission's jurisdiction is required by the public convenience and necessity. In examining whether a proposed new pipeline project is in the public convenience and necessity, the Commission examines a number of issues, including whether the existing customers will

subsidize the project, whether the project proponent has demonstrated that the need for the project outweighs economic impacts on affected landowners and surrounding communities, whether the rates for the proposed service are in the public interest, and the environmental impacts of the project, as mitigated by Commission-required measures. That said, the numerous applications to build and or expand pipeline capacity in the northeast suggest that the region may have a need for additional capacity.

In addition, under section 15 of the NGA, the Commission is charged with ensuring expeditious completion of its reviews of natural gas projects. The Commission balances this mandate with the need to ensure various parties and stakeholders have input into the review process and that thorough and informed analyses are done. In the last 10 years, 92 percent of all projects filed with the Commission have been processed within 12 months.

B. Would new pipeline capacity generally provide economic benefits, such as relief from 37% electric price increases?

Answer: As stated above, any certificate for pipeline construction or expansion authorized by the Commission must be found to meet the public convenience and necessity standard. Increasing the supply of interstate natural gas pipeline capacity into this region may provide economic benefits to either natural gas or electric consumers. The size and location of such capacity would likely affect the extent to which electricity customers might realize benefits.

C. Can the Commission identify reliability benefits for the region?

Answer: As stated above, any certificate for pipeline construction or expansion authorized by the Commission must be found to serve the public convenience and necessity. While project proponents and potential shippers and end users may provide evidence that a new project will deliver supply that may be used by electric generating facilities, the NGA does not specifically require the Commission to consider any reliability benefits accruing to the bulk-power system.

8. Does FERC consider whether proposals submitted are cost effective from a consumer perspective, or if there are competing proposals of equal merit, is FERC obligated to consider whether one proposal is more cost effective in terms of consumer impacts over another?

Answer: One the Commission's key statutory responsibilities is ensuring just and reasonable rates. As part of that responsibility, the Commission balances the economic viability of energy suppliers with the protection of energy customers. The Supreme Court has stated that "rates are 'just and reasonable' only if consumer interests are protected and if the financial health of the pipeline in our economic system remains strong." *FPC v. Memphis Light, Gas & Water Division*, 411 U.S. 458, 474 (1973). Thus, one important aspect in the consideration of just and reasonable rates is the protection of consumers.

9. Nearly two years ago, in January of 2014, during the weather event dubbed the Polar Vortex, the PJM market alone experienced \$597 million in out of market make whole payments. In an Internal Market Monitor report evaluating the weather event, it was noted that the same units have been receiving the majority of make whole payments in PJM for the last 5 years.

A. We understand the Commission is working on several price efforts to address out of market payments but what actions are being take in the immediate future to implement provisions for greater transparency as to which units are receiving these payments?

Answer: As part of the price formation initiative discussed in response to question 5, Commission staff issued its own study of out-of-market make whole payments, or “uplift payments,” which found that they were concentrated among a small number of generation units in August 2014, several months prior to the Polar Vortex.² The results of the report as well as potential solutions were discussed at a Commission technical workshop in September 2014. Commission staff subsequently issued a request for comments related to price formation, which asked several questions about uplift and transparency. After reviewing comments from stakeholders, the Commission determined that additional specific information was necessary to address uplift and transparency and issued the aforementioned order directing reports (please see response to question 3 above) in November 2015. With respect to transparency, the Commission asked each RTO and ISO to provide information about the extent to which it releases information about why uplift payments are made, where the units are located, and which units receive them. Commission staff will review the RTO/ISO reports and associated stakeholder comments; and the Commission will decide what further action with respect to uplift and transparency is appropriate.

B. And what immediate steps are being implemented to decrease these costs for consumers?

Answer: The Commission has taken several steps to reduce uplift and improve price formation in RTOs and ISOs. In addition to the price formation proceedings discussed above in response to questions 3 and 5, the Commission continues to monitor uplift issues in the organized markets and act on applications by the RTOs and ISOs to make reforms to those markets. For example, on December 11, 2015, the Commission approved new tariff provisions in advance of the upcoming winter season aimed at decreasing the number of units in PJM that would receive make-whole (i.e., out-of-market, or, uplift) payments in circumstances such as the Polar Vortex. The Commission accepted tariff revisions that were approved by more than two-thirds of PJM’s stakeholders, including both generation and load interests. These changes include increasing the offer cap for cost-justified offers up to \$2,000/MWh, and allowing such offers to set market prices, as opposed to being recovered through make-whole payments. With these changes, load serving entities are better positioned to enter into arrangements to mitigate exposure to these prices whereas costs paid to resources after-the-fact (make-whole costs) cannot be hedged as effectively.

² Federal Energy Regulatory Commission, *Staff Analysis of Uplift in RTO and ISO Markets*, (August 2014), available at <http://www.ferc.gov/legal/staff-reports/2014/08-13-14-uplift.pdf>.

To address natural gas market issues, the Commission issued a rule related to natural gas-electric coordination in April 2015 that should result in better management of the natural gas supply used in electric generation. In response to that rule and an FPA section 206 proceeding, by March 2016, PJM will post its day-ahead market and reliability unit commitment results earlier in the day, which will assist natural gas units in making timely natural gas supply arrangements.

In addition, the Commission instituted a section 206 proceeding to require PJM to provide generators greater flexibility to update their offers to better reflect fuel costs. In instituting this section 206 proceeding, the Commission indicated that ensuring market participants greater flexibility to structure and modify their offers will allow resources in PJM to better reflect their actual costs in their offers which will, in turn, support proper price formation and efficient real-time dispatch.

The Commission also approved tariff revisions in PJM which took effect in March 2015 that enable PJM to purchase additional reserves in the day-ahead and real-time markets to account for operational uncertainty on days when electric load is expected to reach peak levels. These revisions should result in day-ahead and real-time prices that better reflect the costs of reliably serving electric loads and reduce out-of-market actions and any associated uplift charges during extreme events like the Polar Vortex.

10. The Commission consistently relies on stakeholder governance processes of the structured RTOs/ISOs markets in its orders. However, we have heard concerns regarding the ineffectiveness of the stakeholder process in reaching consensus regarding major issues, such as cost allocation. How is the Commission balancing reliance on stakeholder governance processes with its responsibilities under the Federal Power Act to maintain just and reasonable rates?

Answer: Although the Commission has long recognized the importance of the stakeholder process in informing RTO and ISO decision-making, the Commission exercises independent judgment in ruling on the matters before it. The Commission evaluates the justness and reasonableness of each proposal on its own merits, taking into account the full record developed in the proceeding, including all commenters' views. The Commission has, at times, accepted proposals with limited stakeholder support and rejected proposals with significant stakeholder support. Moreover, while many proposals filed at the Commission are the product of a stakeholder process, stakeholder consideration is not a prerequisite. While specific filing right parameters can differ among regions, all RTOs and ISOs have independent FPA section 205 filing rights with respect to certain tariff changes, and any interested party may file a tariff proposal with the Commission under FPA section 206. Finally, the Commission can at any time independently initiate an FPA section 206 action to ensure the justness and reasonableness of RTO/ISO tariffs.

11. What efforts is the Commission currently undertaking to ensure that both short-term and long-term financial products in the energy markets have some degree of fee or cost certainty? More specifically, what immediate actions is the Commission taking to resolve the underfunding of financial transmission rights and cost uncertainty for short-term products, such as incremental offers, decremental bids and up-to congestions transactions?

Answer: The Commission has instituted an investigation pursuant to section 206 of the FPA to address whether PJM's current tariff allocates uplift among incremental offers (INCs), decrement bids (DECs), and up-to congestion (UTC) transactions (collectively, short-term financial products called virtual transactions) in a just and reasonable manner, among other issues. In January 2015, the Commission held a technical conference at which one panel explored the circumstances under which INCs/DECs and UTC transactions may cause uplift in PJM and, if so, how INCs/DECs and UTC transactions should be allocated uplift charges. The resolution of this proceeding is pending before the Commission.

With regard to the funding of long-term financial products such as financial transmission rights (FTRs) and auction revenue rights (ARRs), PJM has restored revenue adequacy (i.e., full funding) for both the 2014-15 planning period (at 110 percent) and the 2015-16 planning period (at 116 percent), following four planning periods where revenue adequacy ranged from 69 to 85 percent. Nevertheless, on December 28, 2015, the Commission issued an order directing its staff to convene a technical conference to address certain revenue inadequacy issues relating to PJM's allocation of ARR and FTRs. The technical conference will focus on PJM's claim that its existing ARR/FTR provisions are unjust and unreasonable and that its proposed revisions to its tariff addressing these matters are just and reasonable. Issues to be addressed at the technical conference include, but are not limited to: (i) ARR modeling and allocation processes; (ii) treatment of portfolio positions in allocating underfunding or surplus among FTR holders and the potential for market manipulation; and (iii) balancing congestion in ARR/FTR product design. This proceeding is pending before the Commission.

12. What is the Commission doing to foster competition and implement certain minimum standards for the real-time wholesale electricity market across the Independent System Operators, such as a voluntary day-ahead market for transmission?

Answer: The Commission has taken significant steps to ensure that wholesale markets are competitive. As discussed in response to question 5, the Commission initiated a substantial proceeding on price formation, which is a key element of well-functioning regional wholesale power markets. The price formation proceedings for energy and ancillary services in the regional wholesale markets are intended to incent efficient investments in facilities and equipment and promote reliability, provide incentives for resources to respond to system needs, facilitate accurate and transparent pricing, and foster greater competition in organized wholesale electricity markets. As part of the price formation effort, staff held technical conferences, sought public comment, and issued a request for comments to build the record. Recently the Commission has taken several actions on existing price formation practices in RTO/ISO markets.

13. A recent article posted in Forbes suggests that FERC is overzealous in its investigations of alleged manipulation of the wholesale electricity markets, to the point where the Commission is acting as judge, jury and executioner.

A. What is the Commission doing to ensure that all parties involved in its investigations of alleged market manipulation are accorded basic due process rights, including knowledge of the specific aspects of the investigation?

Answer: The Commission's enforcement process, as set forth in Commission regulations and policy statements, gives subjects numerous formal opportunities to engage with Enforcement staff about the legal and factual aspects of the conduct under investigation. The first such formal opportunity is when staff completes its initial fact-finding and provides its preliminary findings to the subject. These findings are often set forth in written statements containing a great deal of legal and factual information supporting the reasons staff preliminarily believes the subject committed a violation. The subject then has a full opportunity to respond to those findings. If Enforcement staff is not persuaded to close the investigation after considering the subject's response to its preliminary findings, staff will then seek authority from the Commission to engage in settlement negotiations. Those settlement negotiations usually involve further detailed discussions about the legal and factual aspects of the investigation, to the extent the subject still has questions or disagreements with staff that were not fully aired during the preliminary findings process. Then, if the matter cannot be settled, staff notifies the subject in writing of its intent to recommend that the Commission initiate an enforcement action—and affords the subject the opportunity to respond to staff's written notice. This response is shared with the Commission. If the Commission determines there is reason to believe the subject committed a violation, it will issue an Order to Show Cause as to why sanctions should not be imposed. The Order attaches Enforcement staff's highly-detailed report setting forth why staff believes the subject committed a violation, and provides the subject with another opportunity to explain its conduct and provide any legal defenses in as much detail as the subject wishes. The Commission carefully considers the subject's response before reaching any conclusion on whether the subject committed a violation and should be assessed any penalties or other sanctions. All of these formal, procedural opportunities have been in place since at least 2008.

Staff also provides many opportunities for informal discussions with the subject and their counsel about the legal and factual aspects of the conduct under investigation. Subjects routinely avail themselves of these informal opportunities. Further, Commission regulations allow a subject to write to the Commissioners directly (not just to Enforcement staff) to express their views about any of the issues in the investigation at any time during the investigation. Subjects are thus given multiple opportunities to respond to allegations and every opportunity to convince the Commission that an enforcement action is unwarranted.

The U.S. Department of Energy, Office of Inspector General (DOE OIG) recently undertook a comprehensive review of the Commission's enforcement program and concluded that "nothing came to our attention to indicate that [the Commission's Office of Enforcement] was not performing enforcement activities in accordance with relevant policies and procedures." DOE OIG, Special Report, *Enforcement Activities Conducted by the Federal Energy Regulatory Commission*, Memorandum at 2 (September 2015). Accordingly, the OIG did not recommend any changes or reforms to Enforcement's procedures.

B. Likewise, when independent market monitors for the Independent System Operators refer potential enforcement matters to FERC, what does the Commission do to hold the market monitors accountable?

Answer: The Commission has required market monitors to refer potential violations they identify in their respective ISOs or RTOs to the Commission. When market monitors make those referrals to Enforcement, staff carefully analyzes the referrals, discusses their contents with the market monitors, and follows up as appropriate. In most instances, market monitor referrals result in staff opening an investigation to consider the potential misconduct in greater detail and with the investigative tools uniquely available to an enforcement agency (such as issuing subpoenas and taking testimony). In some instances, Enforcement staff decides not to open an investigation based on a market monitor referral, or, after opening an investigation, decides to close the investigation after determining that the facts do not support finding a violation or assessing civil penalties. Referrals of potential enforcement matters to the Commission by independent market monitors are an important part of the Commission's effort to accomplish its core enforcement mission of protecting the nation's energy consumers from misconduct—especially fraudulent and manipulative conduct—in wholesale electric markets.

C. Given the due process concerns that have been raised about the FERC enforcement process, and without asking you to agree with those criticisms, would you oppose legislation making it clear that a trial de novo would be available for all FERC enforcement cases?

Answer: Commission enforcement cases arising under the FPA provide subjects an option of seeking “de novo review” in federal district court. The NGA does not provide that option; instead, NGA enforcement cases may result in a hearing before a Commission Administrative Law Judge that ultimately could result in a review by a federal court of appeals (assuming the ALJ finds a violation and that violation is upheld by the Commission). At this time, the meaning of the FPA's de novo review provision is being considered, or will soon be considered, by several federal courts throughout the country. My view is that the best approach would be to see how these courts rule on this issue first, and perhaps how federal courts of appeals analyze the issue as well, before reaching a judgment about whether the FPA's process for reviewing Commission enforcement actions should be amended.

14. In July, FERC issued a proposed rule to address supply chain vulnerabilities for critical infrastructure. I understand this was prompted by the Havex and BlackEnergy malware campaigns in 2014.

A. What is FERC's level of concern about supply chain vulnerabilities?

Answer: Reliability, including cybersecurity, is a primary responsibility for the Commission. While we have moved forward with respect to cybersecurity, bulk-power system cybersecurity remains a top concern of mine. Supply chain vulnerabilities are a significant element of that concern. For these reasons, the Commission proposed a new standard in the above-mentioned Notice of Proposed Rulemaking, and will be conducting a staff-led technical conference on supply chain risk management on January 28, 2016. The Commission seeks to determine if a new standard can help mitigate supply chain risks and, if so, how it should be structured.

In addition to our activities regarding reliability standards, Commission staff has also participated with other agencies such as the Federal Bureau of Investigation (FBI), the Department of Homeland Security (DHS), and DOE to conduct open and classified briefings to industry members as well as state regulators on the vulnerabilities, threats, and mitigation techniques regarding this issue. Staff has assisted industry with best practices to help address this issue through follow-on sessions and included this issue in its IT architectural reviews. The Commission is continuing to evaluate other useful actions to take such as expanding its IT architectural review program and continuing its assistance to the other agencies to gather and disseminate additional information including advanced research.

B. Does FERC have a sense of the extent of the penetration of the Havex and BlackEnergy malware in the U.S.?

Answer: This question is better addressed to DHS. I can say, however, that DHS has implemented a separate Havex/Black Energy awareness campaign to inform industry and encourage them to seek assistance to evaluate their systems for compromise and when appropriate, work with the appropriate federal agencies to assure mitigation. Commission staff has supported DHS in this campaign through participation in several of the presentations that were held throughout the country.

C. How effective do you believe FERC's rulemaking can be in addressing supply chain vulnerabilities, alone or in combination with steps taken through other federal agencies?

Answer: My preliminary view is that the rulemaking can be a useful action in helping to mitigate supply chain vulnerabilities for the bulk power system, and the upcoming conference is intended to explore that issue in detail. This action, in addition to our existing collaborative efforts, will help the Commission evaluate any further steps that it can take regarding this matter. As I described above, in the absence of mandatory standards to address this matter, other helpful actions include the efforts of the Commission staff, often in coordination with the FBI, DOE, and DHS, in conducting open and classified briefings to industry and state governments, including a campaign specifically to address this matter. The Commission plans to continue these activities while including supply chain vulnerabilities and threats as well as mitigation techniques in its IT architecture reviews.

D. From where is FERC deriving its statutory authority to address supply chain vulnerabilities?

Answer: Section 215(d)(5) of the FPA authorizes the Commission to direct NERC to submit a new or modified reliability standard if it is considered by the Commission as appropriate to "carry out this section [215 of the FPA]." A reliability standard, as defined by FPA section 215(a)(3), imposes requirements for the reliable operation of the bulk power system including, among other things, "cybersecurity protection." Reliable operation, as defined by FPA section 215(a)(4), includes operating elements of the bulk power system in a manner to avoid instability, uncontrolled separation, or cascading failures resulting from sudden disturbances, "including a cybersecurity incident." A cybersecurity incident, as defined by FPA section 215(a)(8), covers

the “hardware, software and data that are essential to the reliable operation of the bulk power system.”

15. The Department of Energy Inspector General found that former FERC Chairman Jon Wellinghoff improperly disclosed confidential information. You announced in June of this year that you would determine whether FERC should impose any sanctions.

A. Where are you in the investigation and what have you learned?

Answer: The DOE Inspector General’s June 2015 Management Alert entitled, “Review of Allegations of Improper Disclosure of Confidential, Nonpublic Federal Energy Regulatory Commission Information,” included among its recommendations that I “determine if [former Commission Chairman Jon Wellinghoff] violated the Confidentiality of Investigations requirement and ascertain what, if any, sanctions are available to address the former Chairman’s actions.” In my June 1, 2015 Management Response to that Management Alert, I stated that I agree that the video excerpt discussed in the Draft Management Alert constitutes non-public information from an investigation conducted by the Commission’s Office of Enforcement. I also stated that I had directed appropriate senior Commission staff to explore whether further steps are available to address this situation. That review is now complete. Appropriate senior Commission staff re-examined the steps that we already had taken, conferred again with staff of the DOE Inspector General, and then concluded that there are no further viable options or sanctions to address former Chairman Wellinghoff’s disclosure of the above-noted video excerpt. I accept that conclusion on this matter.

B. What controls are in place to ensure critical, sensitive data is not leaked to the press by former commissioners or FERC staff?

C. What assurances do we have that FERC can be trustworthy with sensitive information?

Answer (B-C): I believe that the Commission can be trusted with sensitive information. The Commission regularly handles large amounts of sensitive information, including information about energy infrastructure and the operation of markets that are subject to the Commission’s regulation and oversight. The Commission takes great care to protect such information.

Following the issuance of the DOE Inspector General’s June 2015 Management Alert and the DOE Inspector General’s January 2015 Report entitled, “Review of Controls for Protecting Nonpublic Information at the Federal Energy Regulatory Commission,” the Commission has taken many steps to enhance our protection of non-public information. Some of those steps relate specifically to treatment of such information by former Commission members or Commission staff. For example, as noted in the June 2015 Management Alert, the Commission has strengthened our post-employment guidance and exit processes, including ensuring that departing Commission members and other employees are aware of what constitutes non-public information and their ethical duty to protect such information after they depart. Commission staff also has coordinated additional efforts in this area, such as incorporating information on these topics into the Commission’s annual mandatory ethics training for 2015.

In addition, the Commission has taken further steps with respect to protection of Critical Energy Infrastructure Information. Commission staff incorporated information on protection of Critical Energy Infrastructure Information into the Commission's annual mandatory ethics training for 2014 and 2015. Commission staff also is exploring whether and how the Commission's regulations on Critical Energy Infrastructure Information should be revised to ensure that they are appropriate to protect relevant non-public information. This review will take account of the responsibilities that Congress recently assigned to the Commission in the Fixing America's Surface Transportation Act, Division F of which directs the Commission (after consultation with DOE) to promulgate within one year a rulemaking on designation and sharing of a new category of information entitled, Critical Electric Infrastructure Information.

16. FERC recently took a number of actions related to NERC data base access (Docket No. RM15-25), supply chain (Docket No. RM15-14), and compliance audits on physical and cybersecurity.

A. Do these recent initiatives signal a change in policy direction for FERC's oversight role under section 215 of the Federal Power Act?

B. What is FERC's justification for these actions?

Answer (A-B): I see these actions as additional techniques for implementing the Commission's longstanding and unchanged policy of taking all reasonable actions to help maintain the reliability of the bulk power system. The proposal for access to the NERC databases is intended to inform the Commission more quickly, directly and comprehensively about reliability trends or reliability gaps that might require development of new or modified reliability standards. The planned audits on physical security were announced as part of the Commission's final rule approving NERC's proposed physical security standard, as a way to monitor the scope of facilities included or excluded by affected utilities. The audits on cybersecurity are based on a major change in the scope and requirements of the standards for cybersecurity, and will help the Commission better understand the efficacy of these new standards. The proposal on supply chain management is prompted by risks recently highlighted in the energy industry, and will be the subject of a Commission conference later this month. Comments on the proposals for database access and supply chain management are pending before the Commission, and the Commission has not yet made a decision on how to proceed on those matters.

THE HONORABLE BILL FLORES

1. As many natural gas pipelines are reaching the end of their useful life, FERC must consider an increased number of applications to abandon aging pipelines.

A. When addressing an application to abandon aging pipeline facilities, is FERC planning to consider the economic impacts of denying an abandonment application as part of its analysis of "all relevant factors"?

Answer: FERC has in the past considered the economic impact of denying abandonment applications. For example, in Docket No. CP10-82-000 an application to abandon certain jointly-owned offshore and onshore facilities collectively known as the Matagorda Offshore Pipeline System (MOPS) was denied abandonment even though data showed that absent an

increase in transportation revenue, the applicants were at risk of operating the facilities with a negative cash flow. The Commission advised the applicants to explore either selling MOPS or negotiating with shippers rates that would recover the costs. The Commission stated that absent applicants and the shippers agreeing to negotiated rates, the appropriate forum for determining what rates are necessary to provide the applicants an opportunity to recover their costs in providing services using the MOPS facilities was a section 4 rate case. The Commission stated that if after an appropriate rate for service on MOPS is established through a section 4 proceeding and the shippers do not value that service sufficiently to take it at that rate, then the applicants could present that fact in support of a renewed application for abandonment.

B. Would FERC consider granting an abandonment application even though abandonment may affect the “continuity of service” to a pipeline customer if FERC determines that replacement of the facilities would be uneconomic?

Answer: Pursuant to section 7(b), a grant of abandonment authorization is appropriate when the Commission finds either that the supply of natural gas that can be accessed by the subject facilities has decreased to the extent that the continuance of service on the facilities is unwarranted or that other considerations support a finding that the abandonment of the facilities is permitted by the public convenience or necessity. The applicant has the burden of providing evidence to support these findings.

The Commission considers all relevant factors in determining whether a proposed abandonment is warranted, but the criteria will vary as the circumstances of the abandonment proposal vary. The Commission weighs the claimed benefits of the abandonment against any costs. While the Commission is sensitive to the economic realities faced by pipelines, there is, however, a presumption in favor of continued certificated service. Hence, continuity and stability of existing service are the primary considerations in assessing the public convenience or necessity of a permanent cessation of service under section 7(b) of the NGA.

In most instances the abandonment applications that are filed with the FERC have already worked out the “continuity of service” issue. If this issue has not been resolved, the Commission strongly encourages applicants to work with their customers to find an alternate means of providing service. For example, in American Midstream, LLC (Midla) Docket No. CP15-523-000, a Settlement Agreement between the pipeline and its customers resolved contested issues concerning Midla’s proposal to abandon much of its aging Legacy System. Under the Settlement, Midla agreed to build the new Natchez Pipeline so that Midla’s existing customers would continue to be served either through the new pipeline, an alternate gas provider, or through conversion to propane service.

C. Is FERC willing to require a customer to financially support a project if they are objecting to the abandonment of the pipeline?

Answer: The Commission relies on firm contracts to support new projects. Any cost burden to a pipeline company or its customers associated with a replacement required due to the US Department of Transportation Pipeline and Hazardous Materials Safety Administration’s requirements not agreed upon prior to a filing would be subject to a section 4 or section 5 rate filing with the Commission. In the rate filing, all parties have the opportunity to present

evidence to support its position on burden of costs.

THE HONORABLE MORGAN GRIFFITH

1. **In some states where only an easement to flood is acquired, common law principles apply, therefore waterfront property lines and rights are extended out into the lake. Given this, in a situation in which the power company operating a FERC-licensed hydropower facility did not obtain rights to the land under the water but merely flowage easements for the right to flood, and tells a property owner that they cannot build a dock on their waterfront property, I would understand that to be a taking. If a power company has only obtained from the property owner the right to flood, would you agree that such restrictions on a property owner's actions on their land – provided such actions do not impede the right to flood – would be considered a taking?**
 - A. **If not, please provide a memorandum from your legal counsel detailing your understanding in defense of this position.**

Answer: Licensees are required to obtain sufficient property rights to comply with the terms of their licenses. In some instances, where the only right that a licensee needs with respect to certain land is to flood it, acquisition of a flowage easement may be sufficient for license compliance, and the licensee may not need to acquire the land under the water. The Commission lacks authority to resolve property law issues, so if a question arises as to the extent of the rights that a licensee has obtained through a flowage easement, the matter must be resolved pursuant to state law, in a court of appropriate jurisdiction, if the matter is litigated. I do not believe that such a case would raise the issue of a constitutional taking, since it would involve a dispute between private parties.

2. **FERC's procedures under the National Environmental Policy Act of 1969 (NEPA) relating to siting and maintenance of facilities are implemented through regulations found in 18 CFR 380.15. According to these regulations, the "use, widening, or extension of existing rights-of-way must be considered in locating proposed [pipeline and electric transmission] facilities."**
 - A. **What steps does FERC take to comply with these regulations?**

Answer: As described in the Commission's order which established the regulations (Order 603; 87 FERC ¶ 61,125), 18 CFR § 380.15 is considered a guideline for applicants to follow in the planning of rights-of-way. Applicants' consideration of existing rights-of-way is reviewed by Commission staff during both the pre-filing review process and during application review. Commission staff uses aerial maps and such tools as Google Earth to determine if other existing rights-of-way are in the general project area. If so, staff requests applicants to provide information on the feasibility of co-location. Staff will also collect data from its own investigations during site visits and from scoping comments, and will conduct an independent review of route alternatives, including those that involve co-location.

B. Does FERC encourage co-location of pipeline and electric transmission facilities when it is safe to do so?

Answer: Commission staff encourages applicants to consider co-location with existing utility rights-of-way, as well as to consider using a portion of an existing right-of-way for temporary construction spaces. During the Commission's independent review of the route proposed by the applicant, staff compares the environmental impacts of identified alternatives to determine whether any have a clear environmental advantage over the proposed route. While co-location (either side-by-side or with overlap) is one of the options for reducing the impact of a project by consolidating environmental impact to a single corridor, it is not always the best alternative. The ability to co-locate depends on several factors, including the nature of the existing right-of-way. For example, there may be limitations on how much of an existing electric transmission right-of-way or a highway right-of-way can be overlapped. In such cases, Commission staff identifies and confirms conflicts with other utilities and uses this information to inform the alternatives analysis presented to the public and the Commission. Construction and operation needs may also limit the amount that rights-of-way may overlap, resulting in an adjacent or offset footprint. This can be a critical factor for existing corridors that traverse a particularly sensitive habitat or in areas where residential development may have encroached up to the edge of the existing right-of-way. In such cases, co-location does not offer an environmental advantage and would not be recommended by staff. In addition, co-locating with existing rights-of-way may add length to the overall pipeline route and increase the total environmental impact of the project. In general, the determination of whether co-locating pipelines with other utility rights-of-way would provide an environmental advantage is dependent on many variables and must be done on a case-by-case basis.

C. In situations where the project applicant does not propose the use of existing rights-of-way, does FERC independently assess and verify whether co-location is compatible with the proposal?

Answer: Yes. Please see responses to A and B.

D. How are third party comments weighed in evaluating the potential to co-locate facilities?

Answer: The first step that Commission staff takes in evaluating an alternative route, such as along an existing utility corridor, is a desktop review of potential environmental impacts. If an alternative has merit, then Commission staff would consider other factors, such as operational effects. The source of a suggested co-location alternative—whether identified by staff, by the public in scoping comments, or by other federal, state, or local agencies—is never part of the consideration. Any alternative, regardless of who identifies it to Commission staff, is considered fully.

THE HONORABLE RICHARD HUDSON

1. **In recent Orders issuing a certificate to operate natural gas facilities, FERC has rejected the assertion that it should have conducted a “programmatically” Environmental Impact Statement to evaluate the effects of shale gas extraction.**

- A. **Would you explain FERC’s rationale for rejecting these arguments?**

Answer: In exercising its responsibilities under the NGA, the Commission must comply with the National Environmental Policy Act (NEPA). The Council on Environmental Quality, which established the regulations covering environmental reviews, has stated that programmatic NEPA reviews may be appropriate where an agency: (1) is adopting official policy; (2) is adopting a formal plan; (3) is adopting an agency program; or (4) is proceeding with multiple projects that are temporally and spatially connected. The Commission does not have jurisdiction over natural gas production, including shale gas extraction, and accordingly does not create official policies, formal plans, or agency programs regarding production activities. The Commission does not direct the development of the gas industry’s infrastructure, either on a broad regional basis or in the design of specific projects and does not engage in regional planning exercises that would result in the selection of one project over another. As a result, it would not be appropriate or useful for the Commission to produce a programmatic NEPA document.

The Commission acts on individual applications filed by entities proposing to construct interstate natural gas pipelines. These projects are not undertaken by the Commission but rather are proposed by a number of different companies in private industry influenced by the market. NEPA requires, and the Commission provides, a thorough examination of the potential impacts of specific projects proposed by private companies. As part of this project-specific review, the Commission considers other activities in close enough time or space to have appreciable cumulative impacts if the project is constructed. This analysis of whether there are overlapping impacts from other projects, including those outside of the Commission’s jurisdiction, is contained in the cumulative impacts section of each project-specific NEPA document. Accordingly, I believe the Commission is undertaking a robust analysis of the environmental impacts of single projects as well as those of multiple projects in a region.

THE HONORABLE JOSEPH KENNEDY

1. **How is the Commission planning to deal with only four sitting commissioners for the foreseeable future when there is always the possibility of a tie ruling? How will the Commission ensure it functions properly so ratepayers are not left without any administrative recourse? We cannot have a replay of FCA8 if a rate change is filed and the four sitting commissioners deadlock.**

Answer: Historically, the Commission has acted as a collegial body. Indeed, in the past three years (i.e., since October 2012), 94 percent of the orders issued by the Commission were unanimous. I intend to continue working closely with my colleagues to reach a merits determination on each case that comes before the Commission. While I believe it will be rare for the Commission to be deadlocked, I also have no concern with Congress making clear that a

filing pursuant to section 205 of the FPA that takes effect by operation of law is subject to rehearing and appeal.

- 2. Given that FERC cannot keep a plant open, order the construction of a new one, or physically site infrastructure, what tools does FERC have and how can they be used to permit and incent both infrastructure and a competitive market to ensure electric reliability at just and reasonable rates?**

Answer: The Commission has certain tools to provide incentives for transmission infrastructure development and support competitive wholesale electricity markets to assist consumers in obtaining reliable, efficient and sustainable energy services at just and reasonable rates. Generally, the Commission relies on competitive market outcomes and accurate price formation in energy, capacity, and ancillary services markets to provide resource owners and potential investors appropriate economic incentives to build, maintain, and operate their facilities efficiently.

In recent years, the Commission has approved or required various reforms to support infrastructure development and competitive markets. The Commission exhibits flexibility in accepting different market constructs that better reflect the regional market characteristics, including the regulations affecting the entry of generation and transmission resources. These actions include market modifications to ensure that appropriate incentives exist to provide all of the unique service attributes that electricity markets require. The Commission has taken action to address electric transmission planning and cost allocation as well as to remove regulatory barriers to merchant transmission development. The Commission also has taken action to improve coordination between the natural gas and electric energy industries to improve the efficiency and use of existing resources.

With respect to transmission infrastructure, the Energy Policy Act of 2005 directed the Commission to establish, by rule, incentive-based rate treatments for transmission infrastructure investment that will help ensure the reliability of the U.S. transmission system and reduce the cost of delivered power by reducing transmission congestion. In response, the Commission issued Order No. 679, which identifies the specific incentives that the Commission will allow if transmission developers justify them in individual filings before the Commission. Since the issuance of Order No. 679 in 2006, the Commission has awarded various incentives to transmission developers.

Further, the Commission and its staff actively engages stakeholders through outreach and technical conferences to assess the functioning of the wholesale energy, ancillary services and capacity markets and review rules associated with infrastructure development and natural gas-electric coordination.

Finally, under section 15 of the NGA, the Commission is charged with ensuring expeditious completion of its reviews of natural gas projects. The Commission balances meeting this mandate with the need to ensure various parties and stakeholders have input into the review process and that thorough and informed analyses are done. In the last 10 years, 92 percent of all projects filed with the Commission have been processed within 12 months.

3. What is the definition of “just and reasonable” rates and how does FERC balance that definition in the name of reliability?

Answer: Two of the Commission’s key statutory responsibilities are ensuring just and reasonable rates and overseeing the reliability of the grid. As part of the responsibility to ensure just and reasonable rates, the Commission balances the economic viability of energy suppliers with the protection of energy consumers. The Supreme Court has stated that “rates are ‘just and reasonable’ only if consumer interests are protected and if the financial health of the pipeline in our economic system remains strong.” *FPC v. Memphis Light, Gas & Water Division*, 411 U.S. 458, 474 (1973). As part of balancing between protecting consumers and promoting and protecting investment in needed infrastructure, the Commission must take into consideration the reliability implications of the proposals that come before it.

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
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December 17, 2015

The Honorable Cheryl A. LaFleur
Commissioner
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Commissioner LaFleur:

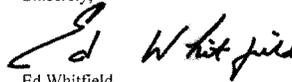
Thank you for appearing before the Subcommittee on Energy and Power on Tuesday, December 1, 2015, to testify at the hearing entitled "Oversight of the Federal Energy Regulatory Commission."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on January 7, 2016. Your responses should be mailed to Will Batson, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Will.Batson@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Ed Whitfield
Chairman
Subcommittee on Energy and Power

cc: The Honorable Bobby Rush, Ranking Member, Subcommittee on Energy and Power

Attachment

FEDERAL ENERGY REGULATORY COMMISSION

Office of The Commissioner

January 7, 2016

The Honorable Ed Whitfield, Chairman
Subcommittee on Energy and Power
House of Representatives
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Whitfield:

Thank you for your December 17, 2015 letter containing additional questions for the hearing record on "Oversight of the Federal Energy Regulatory Commission."

Enclosed please find my responses to your questions. I want to thank you again for the opportunity to appear before the Subcommittee on Energy and Power on December 1, 2015.

Sincerely,

A solid black rectangular redaction box covering the signature of Cheryl A. LaFleur.

Cheryl A. LaFleur
Commissioner

cc: The Honorable Bobby Rush, Ranking Member
Subcommittee on Energy and Power

Attachment Enclosed

Additional Questions for the Record

The Honorable Robert Latta

I. The Energy Policy Act of 2005 and previous legislation gave the FERC authority to oversee the reliability of the bulk power system. In November, 2014, FERC approved physical security grid reliability standards submitted by NERC to enhance physical security for the most-critical Bulk-Power System facilities and reduce overall vulnerability of the grid. The Critical Infrastructure Protection (CIP) standards address physical threats to and weaknesses of the power grid and reduce the risk of damage to the system from physical attacks. The standards outline an approach that focuses on the most critical facilities, incorporating risk management planning to mitigate threats. The standards became effective January, 2015.

a. What makes you certain that grid security is effectively addressed? What are your metrics for success?

Answer: Electric grid reliability and security have been priorities of mine since I joined the Commission in 2010. I believe we have made significant progress on these issues during that time, including putting in place a more comprehensive set of cybersecurity protections as well as the first mandatory physical security standards for the power grid. It is important that we effectively enforce the standards and remain vigilant to opportunities to strengthen them to meet evolving challenges. In this regard, the Commission is currently considering further enhancements to cybersecurity standards, including potential standards related to supply chain security, as well as standards related to geomagnetic disturbances.

Compliance violations, as detected through audits and other compliance monitoring processes, are an important metric of the reliability of the electric grid and also provide opportunities to learn and improve. In addition, of course, both NERC and the Commission closely track power outages on the bulk electric system. NERC's 2015 State of Reliability report has shown a downward trend in the number of load loss events since 2002.

b. What more can and should be done to ensure that our nation's grid remains physically secure and reliable?

Answer: The Commission is already taking steps to put in place and enforce strong reliability standards to improve the reliability and security of the grid. As noted above, the Commission is currently considering improvements to the current CIP standards as well as standards to protect the grid against geomagnetic disturbances. Beyond standards, cooperative efforts among the Commission, other government agencies, and the electric industry help identify emerging threats and ways to improve the reliability and security of the grid. Equipment sharing programs are an example of these voluntary efforts. In addition, through its participation in the Electricity Subsector Coordinating Council, the Commission facilitates collaboration between industry and government in identifying and responding to emerging threats.

I strongly support continuing efforts to improve information sharing between the federal government and electric utilities. In addition my previous congressional testimony, I have supported designating an authority to oversee action to protect the grid in an emergency situation. I appreciate Congress' action on both issues as part of the recent Fixing America's Surface Transportation Act.

2. **"FERC has certified NERC as the nation's Electric Reliability Organization. Through the Energy Policy Act of 2005, Congress established a hybrid system for setting electric grid reliability and security standards; a private corporation, the North American Electric Reliability Corporation (NERC), writes grid standards, while a government agency the Federal Energy Regulatory Commission (FERC) reviews and approves NERC's standards."**
"FERC and NERC appear to have a close working relationship in jointly developing grid standards. During an April 10, 2014 Senate Energy Committee hearing "Keeping The Lights on - Are We Doing Enough To Ensure The Reliability And Security Of the U.S. Electric Grid?" both Cheryl LaFleur, then Acting Chair of FERC, and Gerry Cauley, CEO of NERC, characterized the hybrid system as "working well." Source: Our EnergyPolicy.org website
 - a. **What steps should be taken by FERC to ensure that NERC rules and standards are consistently implemented, with transparency across and among the nation's regional transmission organizations to ensure reliability of the system?**

Answer: Consistent implementation of compliance programs across regions has been a significant focus for the Commission. During the Commission's most recent five-year assessment of NERC's performance as the nation's Electric Reliability Organization in 2014, the Commission directed NERC to implement specific metrics to ensure that programs and policies are implemented consistently across regions. The Commission further directed NERC to report on its progress in improving the consistency of compliance implementation across regions. In addition, the Commission closely reviews Notices of Penalty and other enforcement reports produced by NERC to monitor for consistency between regions. Commission staff also observes various Regional Entity audits each year to monitor, among other things, the consistency of audit procedures and outcomes. In the event of a major system disturbance, the Commission also works jointly with NERC to investigate the incident.

b. Are there regional differences?

Answer: While there are regional differences with respect to generation mix and market structure, the reliability standards are generally designed to be applied consistently across the regions. The Commission encourages both NERC and the Regional Entities to strive for such consistent application of the reliability standards. Recently, NERC has made significant efforts in this area, such as the establishment of a regional consistency reporting tool. This tool allows industry stakeholders to report inconsistencies in methods, practices, or tools of different

Regional Entities. While much progress has been made in this area, I support additional work to continue improving consistency across regions.

c. How do you prioritize reliability rules and initiatives to ensure reliability objectives are met?

Answer: Our work on the reliability standards and other initiatives should prioritize those efforts that have the biggest impact on service to customers. Uninterrupted electric service is critical to every home and business and to the health, economy and security of the nation.

I have often observed that reliability challenges fall into two basic categories. The first set of challenges includes day-to-day issues such as system planning, equipment maintenance and operation, tree-trimming, and storm preparation. In these areas, the goal of standards is to ensure that the basic "blocking and tackling" consistently takes place to keep the system up and running. I believe in the last ten years since the passage of the Energy Policy Act, NERC and industry, under the Commission's oversight, have made substantial progress on these areas, including those issues that contributed to the 2003 Northeast blackout. The second major category of reliability issues are emerging issues that are rapidly changing or not well understood, such as cybersecurity attacks and damage from solar storms creating geomagnetic disturbances. Because these issues can pose a systemic threat to the grid, and are rapidly evolving, addressing them has and will continue to be a personal priority for me.

Finally, I think a growing priority is the resilience of the power grid, *i.e.*, its ability to recover from a major event. The United States is currently investing a tremendous amount in its energy infrastructure due to changes in the nation's power supply. I think this is an excellent opportunity to build greater resilience into the system on the front-end, through efforts such as smart grid technology and system design to prevent or arrest cascading outages.

The Honorable Joseph Kennedy

- 1. How is the Commission planning to deal with only four sitting commissioners for the foreseeable future when there is always the possibility of a tie ruling? How will the Commission ensure it functions properly so ratepayers are not left without any administrative recourse? We cannot have a replay of FCA 8 if a rate change is filed and the four sitting commissioners deadlock.**

Answer: The Commission strives to reach consensus regarding all matters that come before us, and does so in the vast majority of cases. Under the Federal Power Act (FPA), in the event that the Commission does not take action within 60 days of the submission of a proposed rate filed under Section 205 of the FPA, such rate will become effective by operation of law. Unless section 205 of the FPA is amended, the Commission will continue to deal with 2-2 votes on FPA section 205 rate filings in the same manner. I certainly appreciate both the concerns you have raised regarding the lack of administrative recourse for customers in such cases, and your efforts to help address these concerns by making appealable rates that go into effect by operation of law.

- 2. Given that FERC cannot keep a plant open, order the construction of a new one, or physically site infrastructure, what tools does FERC have and how can they be used to permit and incent both infrastructure and a competitive market to ensure reliability at just and reasonable rates?**

Answer: The Commission has a number of statutory tools that it can utilize to ensure electric reliability at just and reasonable rates. Under section 215 of the Federal Power Act, the Commission oversees the development and enforcement of detailed mandatory reliability standards to ensure that market participants are taking the appropriate measures to protect reliability. These detailed standards encompass numerous aspects of system planning, maintenance, and operation and include response to emerging threats such as cybersecurity.

The Commission also uses its rate authority under sections 205 and 206 of the Federal Power Act to protect reliability, by ensuring that rates for wholesale sales of electricity and interstate transmission sustain reliability. In areas of the country served by competitive wholesale markets, the Commission oversees market rules designed to ensure that generation is in place as needed

for reliability. Particularly at a time of considerable change in the nation's resource supply, I believe it is essential that market rules send accurate and timely price signals to ensure that sufficient infrastructure is being built where it is needed most. The Commission also utilizes its enforcement authority under the Federal Power Act to ensure that market participants are not acting to undermine wholesale markets in a manner that threatens the reliability of the grid or harms consumers by manipulating energy prices. With respect to our nation's infrastructure needs, the Commission is authorized under section 219 of the Federal Power Act to award incentives for the investment in transmission infrastructure. Finally, while the Commission does not have jurisdiction over the permitting or siting of electric generation facilities other than hydroelectric facilities, it is responsible under the Natural Gas Act for permitting interstate natural gas pipeline facilities used to supply fuel to electric generation to assure reliability.

- 3. What is the definition of "just and reasonable" rates and how does FERC balance that definition in the name of reliability?**

Answer: The Supreme Court has defined "just and reasonable" rates to be rates that appropriately protect both consumer and investor interests. During my time at the Commission, I have frequently observed that all energy issues ultimately come down to balancing three values: reliability, cost to customers, and environmental impact. The Commission does not make environmental rules, but has substantial responsibility for the reliability and cost of energy. I believe that just and reasonable rates are those that assure reliable service while meeting all environmental and other legal requirements, and do so at least cost to customers consistent with those objectives. Because the reliability of the electric grid is critical to the nation's security and

economy and to the health and well-being of all citizens, I am particularly vigilant to assure that the Commission acts to sustain and promote that reliability.

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

December 17, 2015

The Honorable Tony Clark
Commissioner
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Commissioner Clark:

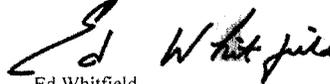
Thank you for appearing before the Subcommittee on Energy and Power on Tuesday, December 1, 2015, to testify at the hearing entitled "Oversight of the Federal Energy Regulatory Commission."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on January 7, 2016. Your responses should be mailed to Will Batson, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Will.Batson@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Ed Whitfield
Chairman
Subcommittee on Energy and Power

cc: The Honorable Bobby Rush, Ranking Member, Subcommittee on Energy and Power

Attachment

121

FEDERAL ENERGY REGULATORY
COMMISSION WASHINGTON, D.C. 20426



OFFICE OF COMMISSIONER TONY CLARK

January 7, 2016

The Honorable Ed Whitfield
Chairman
Subcommittee on Energy and Power
United States House of Representatives
Washington, DC 20515

Dear Chairman Whitfield:

Thank you for your interest in our work at the Federal Energy Regulatory Commission (FERC), and for providing me with an opportunity to express my views on issues of importance at the FERC. Enclosed are my responses to questions for the record that I received from members of the Subcommittee on Energy and Power.

Sincerely,



Tony Clark
Commissioner

Answers of Commissioner Tony Clark to Questions for the Record**The Honorable Joseph Kennedy**

- 1. How is the Commission planning to deal with only four sitting commissioners for the foreseeable future when there is always the possibility of a tie ruling? How will the Commission ensure it functions properly so ratepayers are not left without any administrative recourse? We cannot have a replay of FCA8 if a rate change is filed and the four sitting Commissioners deadlock.**

Answer: The way to ensure that orders do not go into effect by Operation of Law in tie-vote situations in similar circumstances would be for Congress to change the statutory construct. While I am committed to working with my colleagues to achieve consensus whenever possible, an even-numbered Commission does inherently create the possibility of tie-votes when individual Commissioners have honest differences of opinion in Commission proceedings.

- 2. Given that FERC cannot keep a plant open, order the construction of a new one, or physically site infrastructure, what tools does FERC have and how can they be used to permit and incent both infrastructure and a competitive market to ensure electric reliability at just and reasonable rates?**

Answer: While the Commission lacks the legal authority to site, order the construction of, or require the continued operation of electric generating units, the Commission does have wide ranging authority under the Federal Power Act to design and implement wholesale power markets which both attract and maintain capacity, while ensuring bulk power system reliability.

In New England, at the wholesale (FERC-jurisdictional) level, transmission operators have agreed to transfer operational control of their assets to ISO-NE, a centralized body that operates the regional power system, implements wholesale markets, and ensures open access to the transmission system. At the retail (state-jurisdictional) level, all New England states absent Vermont have elected to restructure, allowing for customer choice and the sunset of the Integrated Resource Plan model.

In this competitive model, FERC has the authority to develop and maintain market structures which aim to generate accurate price signals in the energy, ancillary service and capacity markets. Coordinating with ISO-NE, NEPOOL and other stakeholders, the Commission has worked to support, and improve where necessary, the competitive nature of ISO-NE's markets. Sizeable recent actions to improve ISO-NE's energy, ancillary and capacity market outcomes include: (1) the implementation of hourly supply offer capability in both the day-ahead and real-time market; (2) negative Locational Marginal Pricing; (3) regulation market reform; and (4) the implementation of a new capacity regime including a secondary settlement tied to actual resource performance in real-time. Moving forward, the Commission

is exploring further energy and ancillary service market reforms through an on-going Price Formation initiative.

FERC market rules are especially important in restructured markets because merchant generation is a critical component of installed system capacity. Merchant generators operating in competitive markets rely upon accurate price signals to guide complex, multi-year new and continued investment, operational and retirement decisions. Distortion of price signals, while sometimes politically popular in the short run, often leads to price and rate shock in later years, as supply and demand fundamentals seek to quickly correct lingering imbalances that have been allowed to develop.

3. What is the definition of “just and reasonable” rates and how does FERC balance that definition in the name of reliability?

Answer: In exercising the Commission’s responsibility to ensure just and reasonable rates, the Commission has generally acted within two distinct threads depending on the situation of the public utility seeking rate review: cost-justified, or market-justified.

I continue to believe that just and reasonable rates, i.e. cost, and reliability are not disconnected concepts. Rather, cost and reliability are two sides of the same coin.

In exercising its reliability authority, either the Commission, or its designated self-governing reliability entities develop and enforce physical and cybersecurity reliability standards. Once developed, cost or market-based rates then move to an economically efficient equilibrium point in which reliability standards in conjunction with market fundamentals are met, and public utilities receive an appropriate profit and or justified rate of return. If rates rise above the reliability standards and market fundamental equilibrium price, entry of new market participants is incentivized, leading to increased capacity and a corresponding price decline. Conversely, if rates fall below the reliability standards and market fundamental equilibrium price, existing market participants will retire, or otherwise remove inefficient capacity, leading to a price increase back to equilibrium.

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK FALLONE, JR., NEW JERSEY
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WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

December 17, 2015

The Honorable Colette D. Honorable
Commissioner
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Commissioner Honorable:

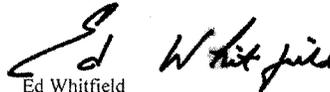
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Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Ed Whitfield
Chairman
Subcommittee on Energy and Power

cc: The Honorable Bobby Rush, Ranking Member, Subcommittee on Energy and Power

Attachment

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF THE COMMISSIONER

January 7, 2016

The Honorable Ed Whitfield
Chairman
Subcommittee on Energy and Power
United States House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Whitfield:

Thank you for the opportunity to testify before the Subcommittee on Energy and Power's Dec. 1, 2015, hearing entitled, "Oversight of the Federal Energy Regulatory Commission." I greatly valued the opportunity to discuss the important energy issues facing our agency and country.

Enclosed are my responses to the Questions for the Record received from members of the Subcommittee. Should you or any other member of the Committee have any questions, please contact me.

Sincerely,

A black rectangular redaction box covering the signature of Colette D. Honorable Commissioner.

Colette D. Honorable
Commissioner

Cc: The Honorable Bobby Rush, Ranking Member, Subcommittee on Energy and Power

Attachment

**QUESTIONS FOR THE RECORD
FOR
Commissioner Colette D. Honorable**

THE HONORABLE JOSEPH KENNEDY

- 1. How is the Commission planning to deal with only four sitting commissioners for the foreseeable future when there is always the possibility of a tie ruling? How will the Commission ensure it functions properly so ratepayers are not left without any administrative recourse? We cannot have a replay of FC8 if a rate change is filed and the four sitting commissioners deadlock.**

ANSWER: Thank you for this important question. Although we do not currently enjoy a full complement of commissioners, my approach to this important work will be the same: to ensure any decisions are grounded in the law and result in just and reasonable rates. My colleagues and I work well together; we are dedicated public servants who believe in the mission of this agency. Existing law requires that the work before us must proceed whether or not we have a full complement of commissioners, and thus far we have been able to operate without a deadlock on any order since Commissioner Moeller's departure on Oct. 30. I have been closely monitoring the New England market developments and when the tenth Forward Capacity Auction comes to our attention, I will weigh all the evidence in the record before making any determination. I will only vote in favor of results I believe are in the public interest, and I am confident my colleagues will do the same.

- 2. Given that FERC cannot keep a plant open, order the construction of a new one, or physically site infrastructure, what tools does FERC have and how can they be used to permit and incent both infrastructure and a competitive market to ensure electric reliability at just and reasonable rates?**

ANSWER: The Commission should always be mindful of whether the markets we regulate are working as intended. Well-functioning markets operate to send important investment signals to market participants and ensure that consumers pay competitive prices for these services.

The Commission has authority under various sections of the Federal Power Act to incent adequate infrastructure investment and ensure the reliable operation of the Bulk-Power System at just and reasonable rates. Section 219 of the Federal Power Act directs the Commission to provide incentives to promote capital investment in the "enlargement, improvement, maintenance, and operation" of all transmission facilities. Sections 205 and 206 of the Federal Power Act grant the Commission authority to regulate tariff provisions addressing resource adequacy, e.g. reliability must run and system supply resources. Pursuant to this authority, the Commission works to ensure resource adequacy provisions that are sufficient to yield an

appropriate level of infrastructure. Sections 205 and 206 also provide the statutory foundation of our mandate to ensure just and reasonable rates in connection with transmission or wholesale sales. Additionally, section 215 of the Federal Power Act provides for, *inter alia*, mandatory reliability standards; violations of which are subject to penalty. Finally, the Commission is uniquely situated to bring stakeholders together through technical conferences, hearings, and alternative dispute resolution to solve persistent problems.

One example of this convening authority is our broad review and assessment of price formation in energy and ancillary service markets. This process began with three technical conferences in late 2014 and it is leading to action on issues related to compensating generation for the value they provide; appropriately reflecting commitment and dispatch decisions in market prices; providing needed transparency and certainty; and, minimizing costs to consumers. I expect these actions will help address, among other things, recent trends in generation retirements and renewable resource penetration.

Additionally, in September 2013, the Commission held a technical conference on capacity markets. Based upon my understanding, a number of market participants urged the Commission to focus first on energy and ancillary service markets because of the larger proportion of revenue associated with these markets before attempting capacity market reforms. Though we remain focused on energy and ancillary service market reforms, we constantly monitor all markets to ensure they are functioning as intended and sending appropriate investment signals.

3. What is the definition of "just and reasonable" rates and how does FERC balance that definition in the name of reliability?

ANSWER: Just and reasonable rates for a public utility necessarily must consider both the protection of the consumer and the capital attraction standards set forth by the United States Supreme Court in its *Hope* and *Bluefield* decisions. The Commission relies upon these decisions to set the allowed returns that are adequate to enable regulated utilities to secure the funding necessary for the proper discharge of their public duties. Still, the primary purpose of the authority granted to the Commission to ensure a just and reasonable rate is consumer protection. See, e.g., *Morgan Stanley Capital Grp. Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cnty., Wash.*, 554 U.S. 527, 564 (2008).

In organized wholesale electricity markets, such as in the Northeast, the same principles apply. Properly functioning markets result in reliable, competitive, and efficient service to consumers, while also providing sufficient returns to attract needed capital. In overseeing the markets, the Commission makes needed adjustments to ensure that the markets function to produce results that are just and reasonable for consumers and market participants.

Our oversight of the reliable operation of the Bulk-Power system is one of the Commission's most important duties, and something that is foremost on my mind. Consumers face significant harm if they cannot rely upon the transmission system. Alternatively, consumers are also harmed if the transmission system is so overbuilt that it becomes unaffordable. Achieving the proper balance is therefore a vital consideration in determining just and reasonable rates.

