OVERSIGHT OF THE FEDERAL ENERGY REGULATORY COMMISSION AND THE FY 2019 BUDGET

HEARING
BEFORE THE
SUBCOMMITTEE ON ENERGY
OF THE
COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED FIFTEENTH CONGRESS
SECOND SESSION

APRIL 17, 2018

Serial No. 115–119

Printed for the use of the Committee on Energy and Commerce
energycommerce.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE
31–421
WASHINGTON : 2018
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The subcommittee met, pursuant to call, at 10:00 a.m., in room 2123 Rayburn House Office Building, Hon. Fred Upton (chairman of the subcommittee) presiding.


Staff present: Samantha Bopp, Staff Assistant; Daniel Butler, Staff Assistant; Karen Christian, General Counsel; Kelly Collins, Legislative Clerk, Energy/Environment; Wyatt Ellertson, Professional Staff, Energy/Environment; Margaret Tucker Fogarty, Staff Assistant; Adam Fromm, Director of Outreach and Coalitions; Jordan Haverly, Policy Coordinator, Environment; Zach Hunter, Director of Communications; Mary Martin, Chief Counsel, Energy/Environment; Drew McDowell, Executive Assistant; Brandon Mooney, Deputy Chief Counsel, Energy; Mark Ratner, Policy Coordinator; Annelise Rickert, Counsel, Energy; Dan Schneider, Press Secretary; Peter Spencer, Professional Staff Member, Energy; Jason Stanek, Senior Counsel, Energy; Austin Stonebraker, Press Assistant; Hamlin Wade, Special Advisor, External Affairs; Everett Winnick, Director of Information Technology; Priscilla Barbour, Minority Energy Fellow; Jeff Carroll, Minority Staff Director; Jean Fruci, Minority Energy and Environment Policy Advisor; Rick Kessler, Minority Senior Advisor and Staff Director, Energy and Environment; John Marshall, Minority Policy Coordinator; Alexander Ratner, Minority Policy Analyst; Tim Robinson, Minority Chief Counsel; Andrew Souvall, Minority Director of Communications, Outreach and Member Services; Tuley Wright, Minority Energy and Environment Policy Advisor; and C.J. Young, Minority Press Secretary.

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

Mr. Upton. Good morning, everybody. Oh, man. Becoming a theme. That’s good.
So we are lucky to have all five members of the Federal Energy Regulatory Commission at our hearing today to discuss the priorities of this independent agency and the challenges of regulating industries that are undergoing significant transformation. Since our last oversight hearing in 2015, FERC itself has also experienced a number of changes with addition of four new members, so I welcome all of you here today and look forward to hearing your individual perspectives on some very complicated and technical issues ranging from grid resilience to battery storage to cybersecurity.

The past year has been challenging for the commission, having struggled without a functioning quorum for more than 6 months, and during that period utility filings became backlogged and decisions were delayed on matters ranging from utility rate applications to million-dollar interstate natural gas pipeline proposals. Fortunately, I understand that FERC operations have returned to near normal, having cleared much of that backlog, allowing the commission to turn its attention towards a host of issues ranging from controversial changes to the RTO capacity markets to how new energy infrastructure projects should be evaluated under FERC’s certificate policy.

As we recently heard at your hearing on energy infrastructure, building new pipelines and electric transmission towers is not an easy or simple task. Affected landowners know their rights and they have organized campaigns to oppose new energy projects, sometimes protesting at FERC’s doorstep. I understand that Chairman McIntyre announced that the commission is now taking a fresh look at its 1999 policy to evaluate the need for new natural gas pipelines. Obviously, a lot of changes have occurred over the last 20 years in the way infrastructure is developed. So I would be interested to hear what may come from that review.

Another topic that has consumed much attention in the industry and at FERC recently involves the question of the bulk power system’s ability to anticipate, withstand, and recover from disruptive events. This topic of grid resilience became a source of much heated debate we heard from Secretary Perry just last week that the national security of this country is jeopardized—those are his words—if we don’t take steps to protect the grid. I understand that FERC is flagged as a top priority and has directed each of the RTOs and ISOs to provide detailed information regarding the state of grid resilience. The committee is reviewing the RTO’s submissions to FERC and will seek and track the anticipated responsive comments through early next month.

FERC’s jurisdictional electricity markets have also been a topic of frequent discussion during our Powering America hearing series. We have heard concerns from market participants that range from the need for updated PURPA regs to changes to FERC’s transmission planning rules under Order 1000. Additionally, recent pricing proposals developed by the RTOs and ISOs aimed at accommodating state policies represent a fundamental shift in how resources set prices in the wholesale markets. Commissioner LaFleur deserves credit for focusing on that issue last May when she was chairman. But, as these Federal-state jurisdictional issues play out in filings at FERC and in litigation at the various courts of ap-
peals, we should consider the differences between an impact of the wholesale and retail electricity markets.

So these are tough issues and I recognize that you’ve got a lot on your agenda right now. However, despite the tough work and challenging issues FERC faces, I’d like to point out that the commission is consistently ranked among the best places to work in the Federal Government, based on employee surveys and your success in maintaining such high marks by your 1,500 staff members is noted.

With that, I want to thank the commissioners again for appearing today. I look forward to your testimony and the questions and interactions that we have between us.

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

We are lucky to have all five members of the Federal Energy Regulatory Commission at our hearing today to discuss the priorities of this independent agency and the challenges of regulating industries that are undergoing significant transformation. Since our last oversight hearing in 2015, FERC itself has also experienced some changes with the addition of four new members, so I welcome you here today and look forward to hearing your individual perspectives on some very complicated and technical issues ranging from grid resilience to battery storage to cybersecurity.

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Another topic that has consumed much attention in the industry and at FERC recently involves the question of the bulk power system’s ability to anticipate, withstand, and recover from disruptive events. This topic of “grid resilience” became a source of much heated debate and we heard from Secretary Perry just last week that “the national security of this country is jeopardized” if we don’t take steps to protect the grid. I understand that FERC has flagged as a top priority and has directed each of the RTOs and ISOs to provide detailed information regarding the state of grid resilience. The Committee is reviewing the RTO submissions to FERC and will track the anticipated responsive comments, due early next month.

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work in the Federal Government based on employee surveys—and your success in maintaining such high marks by your 1,500 staff members is noted. With that, I'd like to thank the commissioners for appearing today and I look forward to your testimony.

Mr. UPTON. With that, I recognize the ranking member of Energy Subcommittee, Mr. Rush, my friend from Illinois.

OPENING STATEMENT OF HON. BOBBY L. RUSH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. RUSH. I certainly want to thank you, Mr. Chairman, for holding this very timely hearing today. I look forward to hearing from the FERC commissioners on some of the more pressing issues regarding the reliability and the resiliency of the Nation's electric grid.

Mr. Chairman, just last week this subcommittee heard from Secretary Perry on what he considers a very real concern regarding grid reliability, specifically, Mr. Chairman, the topic of DOE intentionally using its emergency authority under Section 202(c) of the Federal Power Act to grant the request made by First Energy to issue an emergency must-run order for 85 coal and nuclear plants within the PJM interconnected came up more than once.

In fact, Secretary Perry, Mr. Chairman, seemed to be sounding the alarm that we are quickly heading toward a point of no return when the imminent retirement of several coal and nuclear plants would leave our nation in a situation where we would be unable to meet our energy demands if we do not act soon.

Mr. Chairman, I look forward to hearing the commissioner's views on these critical issues. Another topic of great debate during last week's DOE hearing focused on the March 2018 study by the National Energy Technology Laboratory, or NETL. That report highlighted the use of coal during the prolonged cold snap that the Nation experienced between December 2017 and January 2018.

The NETL study concluded that within the PJM region, coal provided the most resilient form of generation during this cold blitz and went on to say that without the available capacity from coal facilities then PJM would have experienced power shortfalls and widespread blackouts.

However, Mr. Chairman, just this past Friday, PJM issued its own response to the NETL study refuting those conclusions and stating that PJM indeed had adequate amounts of resources to supply power and then not need to invoke emergency procedures. PJM also noted that, while coal and nuclear played an important role during this period, that was more due to economic factors and it really never faced any reliability threats.

Mr. Chairman, and the agency responsible for ensuring the reliability of the Nation's electrical grid, I look forward to hearing directly from the FERC commission on this and other important issues.

Specifically, I would like to commend the agency for its recent unanimous vote finalizing the rulemaking allowing for distributive energy resources to compete in wholesale markets. This vote marks an important step in the right direction by allowing advanced technologies such as demand response, energy storage, electric automobiles, and photovoltaics potentially in the wholesale market.
Unfortunately, Mr. Chairman, I also have some concerns regarding the recent policy change determining how impacting stakeholders may intervene in pipeline review.

I'd like to hear from the commission on its justification for a less lenient in allowing interveners to join proceedings that are, quote, “out of time” and how these new changes might impact public input and participating in the pipeline review process.

That said, Mr. Chairman, I look forward to engaging the commissioners today and I will yield back the balance of my time.

Mr. Upton. The gentleman yields back.

The chair would recognize the chair of the full committee, the gentleman from the good state of Oregon, Mr. Walden.

OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. Walden. Thank you, Mr. Chairman.

Good morning. Welcome to our FERC commissioners. We are delighted that you're here. I think the last time we had all the commissioners before the committee was in 2015, and so we are delighted that you're here. But this is the first time under the chairmanship of Commissioner McIntyre. So we look forward to the discussion that will take place.

FERC oversees, as you all know, many critical aspects of our nation's energy infrastructure and industry, and through the authorities provided by Congress, namely, the Federal Power Act and the Natural Gas Act, the commission regulates the interstate transmission of electricity, natural gas, and oil and reviews proposals to build LNG terminals, interstate natural gas pipelines, and oversees the licensing of hydro power projects, all of which are very, very important to our country and to my state.

Our nation's energy industry is at the forefront of an unprecedented period of change driven in part by changes in fuel mixes, technological innovation, and market competition.

Declining natural gas prices, stable demands, zero cost generation resources, greater efficiency—they've all led to a generation mix differentiated not solely by cost but through operational characteristics such as dispatchability flexibility and ramping.

So a well-functioning energy system is dependent on competitive markets. However, in some wholesale electricity markets, certain generation resources such as coal and nuclear are struggling to recover costs and remain competitive. In some cases, under wholesale market rules, inflexible generation units are not permitted to set price. This presents real challenges for cost recovery, which could, ultimately, have an impact on the reliability and resiliency of our electricity grid. So I am hopeful that FERC will take this matter seriously as it conducts its review of comments regarding resiliency in the organized electricity markets.

At the same time, advances in digital information technologies are driving real change, creating new opportunities for more intelligent and dynamic energy systems. Many of these advanced energy technologies have applications on the distribution side and behind the meter beyond the regulatory reach of FERC. However, given the interconnected nature of our grid, we are beginning to
see their impacts on the bulk power system and wholesale electricity markets.

Of course, as our generation mix shifts toward natural gas, we are going to need more pipelines to transport gas from producing wells and user consumers. New England is especially feeling that crunch, as we have heard, as we saw when they had to import LNG from Russia on two occasions this year to meet market demands.

So I am hopeful that Chairman McIntyre’s review of FERC’s procedures for evaluating applications for new gas pipelines will result in more efficient and timely decisions. I understand that FERC will be taking formal action on this review at its open meeting on Thursday.

With our abundant shale resources, we can be entirely self-sufficient on natural gas. But we must construct new pipelines to do that. While cross border trade with our neighbors in Canada and Mexico may be a win-win, we should never have to be reliant on the Russians for imports again.

Since taking the gavel as chairman of this committee, I’ve made it my promise to always put the consumer first in everything that we do. The modern consumer expects greater control, convenience, and choice when it comes to their energy consumption.

I am excited about the changes taking place and the opportunities that it presents to our nation’s economy and energy security. With that, I’d like to thank all of you for willingness to participate in this public service and in this hearing and I look forward to your testimony.

As you all well know, we also have another subcommittee meeting at the same time on telecommunications issues so you will have members, including myself, coming and going.

We really value your testimony and your long public service and we look forward to a partnership together for America’s future.

With that, Mr. Chairman, I would yield back the balance of my time.

[The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

Good morning and welcome to our FERC commissioners. The last time the Energy and Commerce Committee heard testimony from all five commissioners was in 2015, as Commissioner LaFleur may remember. However, this is a first under the Chairmanship of Commissioner McIntyre, so we’re grateful for the opportunity and looking forward to today’s hearing.

The Federal Energy Regulatory Commission—known as FERC—oversees many critical aspects of our nation’s energy infrastructure and industry. Through authorities provided by Congress, namely the Federal Power Act and the Natural Gas Act, the commission regulates the interstate transmission of electricity, natural gas, and oil; reviews proposals to build LNG terminals and interstate natural gas pipelines; and, oversees the licensing of hydropower projects.

Our nation’s energy industry is at the forefront of an unprecedented period of change—driven in part by changes in fuel mixes, technological innovation, and market competition.

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for our nation’s economy and energy security. With that, I’d like to thank the Com-
mmissioners for appearing before us today, and I look forward to their testimony.

Mr. UPTON. The gentleman yields back.

The chair would recognize the ranking member of the full com-
mittee, Mr. Pallone, from New Jersey.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REP-
RESENTATIVE IN CONGRESS FROM THE STATE OF NEW JER-
SEY

Mr. PALLONE. Thank you, Mr. Chairman.

I am pleased that there is finally a full slate of five commis-
sioners at FERC. Last year, I voiced my concern that a lot of im-
portant work was put on hold for an extended period of time be-
cause the commission lacked a quorum, and it’s a pleasure to have
all five of you here with us today.

First, I’d like to thank the commission for its decision to reject
Secretary Perry’s notice of proposed rulemaking to provide cost re-
covery for certain coal and nuclear facilities that are no longer eco-
nomical. This proposed rule is a threat to competitive electricity
markets and would have led to higher energy prices for consumers.

With Secretary Perry’s proposed rulemaking now behind us, we
must turn our attention to the feedback that the commission re-
ceives from the regional transmission organization as it relates to
current resiliency risk.

I would also like to touch briefly on FERC’s authority to review
applications for the construction of interstate natural gas pipelines.
For years I’ve expressed concern with the process FERC uses to re-
view pipeline applications and its tendency to green light the con-
struction of potentially unnecessary pipeline projects.

Overbuilding our natural gas pipeline system has many negative
impacts on the public. Ratepayers ultimately foot the bill for the
construction of these pipelines whether they are necessary or not.
Homeowners in the path of a pipeline also have little recourse to
stop pipeline companies from seizing their land through eminent domain.

It's time for a new approach. I believe a more regional review of these projects should be implemented rather than the current process where every pipeline appears to be reviewed individually without any consideration of other pipelines in the area. And I was encouraged by Chairman McIntyre’s announcement in December that FERC will review its 1999 pipeline policy statement. I hope this review leads to a new pipeline policy that provides greater protections to property owners and more holistic review process that looks at all pipelines in a given region.

I've also heard from many property owners and advocacy groups that FERC is not nearly responsive enough to the public. More needs to be done at the commission to provide a greater role for the general public and the FERC process. My colleague, Representative Schakowsky, had introduced a common sense bill that would create an office of public participation in consumer advocacy at FERC and such an office would provide an important resource for everyday citizens who typically lack the ability to navigate the complex FERC process.

And finally, I'd like to address FERC’s grid storage order number 841, which was issued in February. I've long advocated for finding ways to introduce more distributed energy and energy storage into our electric grid and removing the many barriers preventing storage benefits from reaching consumers. And so I am fully aware that there are some technical changes that grid operators and utilities will have to overcome, but it can be done and I am pleased that FERC has directed the RTOs to evaluate how storage can add value to our electricity markets.

So, again, let me conclude by welcoming everyone here today. Thank you, and I yield back, Mr. Chairman.

Mr. Upton. Gentleman's time has expired.

We are now prepared to hear testimony from each of the commissioners. We welcome you. Thank you for submitting your testimony in advance. It'll be made part of the record.

We will let you spend 5 minutes each summarizing your statements and at that point we will go to questions on both sides.

So Mr. McIntyre, welcome. Good to see you.

STATEMENTS OF THE HONORABLE KEVIN J. MCINTYRE, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION; THE HONORABLE CHERYL A. LAFLEUR, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION; THE HONORABLE NEIL CHATTERJEE, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION; THE HONORABLE ROBERT F. Powelson, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION; THE HONORABLE RICHARD GLICK, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION

STATEMENT OF KEVIN MCINTYRE

Mr. McIntyre. Thank you, Chairman Upton. Likewise. Thank you. Good morning, Chairman Upton and Ranking Member Rush, and distinguished members of this subcommittee.
My name is Kevin McIntyre, and since December I have had the privilege of serving as the chairman of the Federal Energy Regulatory Commission, FERC. FERC is an independent Federal agency that regulates important aspects of our nation's electric, natural gas, hydro power, and oil pipeline industries.

As chairman, I am particularly pleased to be serving alongside my esteemed fellow commissioners who are also appearing before you today. I could not have hoped for a more engaged, better informed, and more public spirited group of colleagues than these.

My goals as chairman include the fostering of continued excellence at FERC, which was recently recognized as you, Chairman Upton, recognized in a prominent national ranking of the best places to work in the Federal Government as the number one mid-sized agency. My goals also include making FERC’s actions as open, transparent, fair, and efficient as possible. A top substantive priority of mine is to protect and promote the resilience of our bulk power system, as has been mentioned here this morning.

On January 8, we initiated a proceeding to evaluate the state of that grid resilience. We are still receiving the incoming public comments in response to our issuance in that proceeding, and as we are informed by those comments and deliberate on them, we will make determinations as to whether additional action by FERC is warranted in this critical area. I also am pleased that FERC is beginning a review of our 1999 policy statement on the certification, our term for the approval process for interstate natural gas pipeline facilities.

As a matter of good government, I believe that it is appropriate for us, as with any other governmental body, to review our policies and processes from time to time to explore whether any improvements can be made.

Our review of gas pipeline certification processes is timely in light of the many changes that the natural gas industry has witnessed in the past 20 years. In addition to these specific goals and priorities, as chairman, FERC is continuing to consider many other important issues. My fellow commissioners will address some of those in their testimony before you here this morning.

With that, I thank you for this opportunity to appear before you.

[The prepared statement of Mr. McIntyre follows:]
Chairman Upton, 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). My name is Kevin McIntyre, and I have the honor of serving as the Chairman of FERC, an independent agency that regulates important aspects of our Nation’s electric, natural gas, hydropower, and oil pipeline industries. Those aspects include the wholesale sale of electricity and natural gas in interstate commerce, transmission of electricity in interstate commerce, and transportation by pipeline of natural gas and oil in interstate commerce. FERC also reviews proposals to build liquefied natural gas terminals and interstate natural gas pipelines, as well as to license hydropower projects. It is our mission to assist consumers in obtaining reliable, efficient, and sustainable energy services at a reasonable cost through appropriate regulatory and market means.

On February 12, 2018, FERC submitted to Congress its 2019 fiscal year budget request. As authorized by the Federal Power Act and Omnibus Budget Reconciliation Act of 1986, FERC recovers its full cost of operations through annual charges and filing fees assessed on the industries it regulates. The revenue from these charges and fees is deposited into the U.S. Treasury as a direct offset to FERC’s budget appropriation, resulting in a net appropriation of zero.

I joined FERC as Chairman in early December 2017. Prior to joining FERC, I had the privilege of serving as co-lead of the global energy practice at the Jones Day law firm. At the firm, I had an expansive FERC practice, where I counseled and represented
clients in nearly all energy industry sectors. Now, as Chairman of FERC, I am again surrounded by distinguished colleagues with wide-ranging experience and expertise, including a former industry executive, a former state regulator, and two former senior advisors from Capitol Hill. This diversity of background among our full complement of five Commissioners is a strength for FERC, one that allows us to analyze complex problems through different lenses and reach well-informed decisions.

I am also surrounded by excellent advisors and staff. FERC has approximately 1,500 employees, who serve in 12 offices that contribute in different ways to fulfilling our mission and responsibilities. I am impressed by FERC staff’s dedication and commitment. In January, I was honored to accept an award recognizing FERC as the top mid-sized agency in a ranking of the Best Places to Work in the Federal Government. The Partnership for Public Service compiles those rankings based on data gathered from the Federal Employee Viewpoint Survey conducted each year by the Office of Personnel Management. This award reflects FERC’s tradition of excellence. As Chairman, it is my goal to build on this tradition and continue to foster excellence at FERC.

As a fundamental philosophical matter that informs my approach to governance, I believe deeply in the importance of the rule of law. Any consideration of potential action by FERC, or by any governmental body, must begin with a firm understanding of the applicable legal requirements, and any action taken must satisfy those requirements in full. Because many situations permit a range of lawful decisions, including some with profound policy implications, it is critical for FERC to consider a diversity of views from stakeholders and the public. It is my goal to make FERC’s actions as open and transparent as possible. I strive to bring an even-handed and judicious approach to each matter, with a focus on listening, which is indispensable to fairness and sound decision-making.

With those principles in mind, I would like to highlight a few of my priorities as Chairman.
Resilience of the Bulk Power System

First, during my tenure as Chairman, protecting and promoting the resilience of the bulk power system will remain a top priority. FERC previously has taken steps with regard to reliability and other matters that have helped to address the resilience of the bulk power system. We recognize that we must remain vigilant with respect to resilience challenges, because affordable and reliable electricity is vital to the Nation’s economic and national security.

To place FERC’s current actions on resilience in context, it is useful to note the evolution of the electric power industry. Historically, vertically integrated utilities generally built and owned the generation, transmission, and distribution facilities needed to serve load within their respective defined service territories. Utility rates were historically regulated by federal and state regulators on a cost-of-service basis: the utilities charged for electric generation at rates calculated to compensate them for their actual costs plus a fair rate of return. In other words, during this early period, there was no market structure as we understand it in today’s electric power industry.

Beginning in the 1970s, statutory and regulatory developments at the federal and state level encouraged the development of competitive electricity markets, including encouraging the growth of non-utility generators. In 1996, FERC issued its landmark Order No. 888, which required public utility transmission providers to provide open access transmission service and developed principles for the concept of independent system operators (ISOs) and regional transmission organizations (RTOs). In 1999, FERC issued Order No. 2000, which expressly encouraged the development of such regional entities, with the intent of using them to foster competitive power markets. Meanwhile, starting in the 1990s, a number of states restructured their retail electricity markets to allow for more competition in the generation sector, which further contributed to development of bulk power markets and increased reliance on independent regional bodies for operation of the grid.
These developments significantly affected the traditional vertically integrated model, particularly in regions of the country where RTOs and ISOs manage the transmission grid. Notably, subject to FERC approval, RTOs and ISOs have developed organized markets for electric energy and ancillary services, and a number of them have also established centralized capacity markets. A result of this approach has been that, in regions with organized markets, FERC has largely adopted a pro-market regulatory model, wherein FERC relies on competition in approving market rules and procedures that, in turn, determine the prices for the energy, ancillary services, and capacity products (where applicable). Under this pro-competition, market-driven system, owners of generating facilities that are unable to remain economic in the market may take steps to retire or mothball their facilities. FERC’s support of competitive wholesale electricity markets has been grounded in the substantial and well-documented economic benefits that these markets provide to consumers.

A continually evolving phenomenon that has affected the development and evolution of electric markets is innovation in the energy sector and the change in the energy resource mix. As part of its ongoing oversight of wholesale electric markets, FERC continues to evaluate its current rules and has issued several orders to ensure that rates in these markets remain just and reasonable and not unduly discriminatory or preferential. FERC has acted to remove barriers to the integration and participation of variable energy resources, demand response resources, and, in February of this year, electric storage resources. FERC also has issued orders revising or expanding compensation opportunities for various grid services, such as frequency regulation, so that compensation more accurately reflects the value of the service provided.

At the same time, however, FERC has continued to ensure that reliability is at the forefront of its responsibilities. FERC’s endorsement of markets does not conflict with its oversight of reliability, and FERC has been able to focus on both without compromising its commitment to either.
FERC brought this approach to our recent consideration of a proposed rule on grid reliability and resilience pricing submitted by the Secretary of Energy. On January 8, we issued an order finding that the proposed rule did not satisfy the requirements of the Federal Power Act, and, therefore, we terminated that proceeding. In the same order, we noted our appreciation to the Secretary for reinforcing the resilience of the bulk power system as an important issue that warrants further attention, and we initiated a new proceeding to specifically evaluate the resilience of the bulk power system in the regions operated by RTOs and ISOs. The goals of the new proceeding are to: (1) develop a common understanding among FERC, industry, and others as to what resilience of the bulk power system means and requires; (2) understand how each RTO and ISO assesses resilience for its geographic footprint; and (3) use this information to evaluate whether additional FERC action regarding resilience is appropriate.

With these goals in mind, we directed each RTO and ISO to submit information to FERC within 60 days on certain resilience issues and concerns to enable us to examine holistically the resilience of the bulk power system. We also provided the opportunity for reply comments to be filed within 30 days after the RTO/ISO responses. On March 9, 2018, each RTO and ISO submitted information in response to our order. We subsequently extended the time for reply comments by 30 days, to May 9, 2018, to ensure that our next steps are based on the best available information.

It is my expectation that FERC will review the responses and decide whether additional FERC action is warranted to address grid resilience. As we approach this review, we are mindful that the Commission’s markets, transmission planning rules, and reliability standards should evolve as needed to address the bulk power system’s continued reliability and resilience.

We also recognize that there seems to be a general consensus that grid reliability and grid resilience are related but separate concepts, with the elements of grid reliability being better understood and defined. The Commission’s oversight of electric reliability
involves ensuring that the bulk power system is planned and operated so that instability, uncontrolled separation, and cascading failures do not occur as a result of a disturbance, equipment failure or cybersecurity incident. Resilience could encompass a range of attributes, characteristics, and services that allow the grid to withstand, adapt to, and recover from both naturally occurring and manmade disruptive events.

In addition, the concept of resilience necessarily involves issues that extend beyond FERC’s jurisdiction, such as distribution system reliability and modernization. For that reason, in our January 8 order, we also encourage RTOs and ISOs and other interested entities to engage with state regulators and other stakeholders to address resilience at the distribution level.

Review of the Commission’s Certificate Policy Statement

A second priority of mine stems from my philosophy of governance. I believe that, as a matter of good government, we owe it to all concerned to take a look at our processes and policies from time to time and ask ourselves whether there is any way that we can improve them. After speaking with my fellow Commissioners, I decided that the first such review of my Chairmanship would involve taking a fresh look at FERC’s 1999 policy statement on the certification of interstate natural gas pipeline facilities.

Under the Natural Gas Act, FERC has the responsibility to determine whether a proposed natural gas pipeline project is required by the public convenience and necessity. In the nearly two decades since FERC adopted its current approach to making that determination, the natural gas industry has witnessed significant changes. These changes include the emergence of new areas of natural gas production, flows on pipeline systems becoming bidirectional or reversing, a closer relationship between natural gas transportation and electric generation, a higher level of concern among landowners and communities affected by proposed projects, and an increasing interest in how FERC reviews natural gas pipeline certificate applications under the National Environmental Policy Act.
Amid such changes, I believe that it is prudent to review FERC’s current approach to certification of natural gas pipelines. My colleagues and I continue to consider internally both the scope and format for this review. However, I note that last Thursday, we issued a notice for our April 19, 2018 open meeting, consistent with the Government in the Sunshine Act. That notice includes an item in Docket No. PL18-1-000, the proceeding we initiated to conduct the review. Today I intend neither to forecast a policy direction nor to prejudge the outcome of our review. Rather, I intend that our review will provide the opportunity for thoughtful input from interested stakeholders and the public, which I hope will help us to identify whether there are areas in which we can improve our policy or processes and, if so, what those improvements may be. I look forward to sharing additional details in the coming days.

**Other Issues before FERC**

Of course, these are not the only issues to which FERC is now devoting its attention. My fellow Commissioners are addressing in their written testimony examples of other important matters now before FERC. Commissioner LaFleur is discussing the wholesale electric markets and FERC’s continuing commitment to facilitating the development of needed electric transmission facilities. Commissioner Chatterjee is discussing applicability of the Public Utility Regulatory Policies Act of 1978 in an environment notably different from the time of its enactment, as well as FERC’s responsibilities with respect to the reliability of the bulk power system. Commissioner Powelson is discussing cybersecurity challenges related to infrastructure over which FERC has regulatory responsibilities, as well as changes and challenges to the electric grid. Finally, Commissioner Glick is discussing the potential of several emerging technologies, including electric storage and the aggregation of distributed energy resources.

I thank you again for inviting all of us to appear before you today. I look forward to answering your questions.
Summary of the Written Testimony of Kevin J. McIntyre
Before the House Subcommittee on Energy

My name is Kevin McIntyre. Since December 2017, I have had the honor of serving as Chairman of the Federal Energy Regulatory Commission (FERC). FERC is an independent agency that regulates important aspects of our Nation’s electric, natural gas, hydropower, and oil pipeline industries.

My goals as Chairman include continuing to foster excellence at FERC, which was recently recognized as the top mid-sized agency in a ranking of the Best Places to Work in the Federal Government, and making FERC’s actions as open and transparent as possible.

A top substantive priority of mine is to protect and promote the resilience of the bulk power system. On January 8, 2018, we initiated a proceeding to evaluate the resilience of the bulk power system in the regions operated by Regional Transmission Operators and Independent System Operators. We are still receiving public comments in this proceeding, and as informed by those comments, we will decide promptly whether additional FERC action is warranted on this critical subject.

I also am pleased that FERC is beginning a review of our 1999 policy statement on the certification of interstate natural gas pipeline facilities. I believe that, as a matter of good government, it is prudent to review our processes and policies from time to time to explore whether any improvements can be made. Our review is timely in light of the many changes that the natural gas industry has witnessed in the past 20 years.

In addition to these goals and priorities during my tenure as Chairman, FERC is considering many other important issues. My fellow Commissioners are addressing several such matters in their prepared testimony.
Mr. Upton, Thank you.
Ms. LaFleur, welcome.

STATEMENT OF CHERYL LAFLEUR

Ms. LaFleur. Thank you, Chairman Upton, Ranking Member Rush, and members of the subcommittee.

My name is Cheryl LaFleur. I've been a commissioner at FERC for nearly 8 years and have appeared before this committee several times. Got a little lonely last year so I am extremely happy to be here this morning with the full commission.

What I am going to discuss today is FERC's regulation of our wholesale electricity markets and I will also touch briefly on our oversight of interstate transmission planning. Both areas are covered more fully in my written testimony.

The organized markets that provide electricity to more than two-thirds of Americans are, roughly, 20 years old now and I believe they've done a very good job for the Nation's electric customers, promoting efficiency and innovation and protecting reliability at least cost by deploying resources over a broader regional footprint. As the Committee knows, there are different market structures in different regions of the country, reflecting varied State and regional regulatory choices. Perhaps the most prominent difference is that the eastern markets—PJM, New York ISO, and ISO New England—use mandatory capacity markets to ensure resource adequacy because all or most of the States in those regions chose to deregulate generation in the 1990s. By contrast, the Midwestern and Western markets—MISO SPP and CISO—rely primarily on state resource planning for resource adequacy.

The markets have grown dramatically since I've joined FERC in 2010. In 2013, the Energy companies and others in the mid-south became part of MISO, nearly doubling its size. Two years later in 2015, the integrated systems and part of the Western Area Power Administration in the upper Midwest joined SPP, marking the first time a Federal power marketing administration chose to join the market.

The big story in 2018 is the expansion of markets in the west. The western energy imbalance market operated by the California ISO has expanded in recent years to include utilities in five Western states including several public power entities and now represents the load of 55 percent of the western interconnection. Several more entities are scheduled to join in the next 2 years when two-thirds of the electricity in the West will be shared and balanced by that market.

In addition to the group of companies primarily in Colorado and Wyoming, and are known as the Mountain West Transmission Group, have indicated their intent to join the Southwest Power Pool. I think it's really important that these market expansions are being driven at the state and regional and company level, not driven by FERC. In fact, I strongly believe that's the only reason they're happening is that the choices are being made in the regions. They reflect the increasing and increasingly broad recognition that sharing resources over a large footprint can sustain reliability and save money for customers, especially at a time of substantial resource change.
FERC has worked hard to make sure the markets do what they’re supposed to do. We’ve taken a number of steps to make sure that markets are fair for all resources including emerging technologies. We’ve also worked to ensure grid resilience by overseeing capacity market changes to increase compensation to the resources including baseload that keep the lights on at times of system stress.

In the energy markets, we’ve taken a number of steps on market mechanics to improve price formation. The most challenging issue currently confronting the wholesale markets is their interplay with state policy initiatives, which my colleague, Mr. Powelson, will discuss and which I touch on in my testimony.

Finally, I will comment briefly on our work on interstate transmission. It’s been nearly 7 years since FERC issued Order No. 1000 to require regional transmission planning and cost allocation and require competitive transmission selection over some projects.

All regions of the Nation are in some stage of implementing Order 1000 at this point. Five of them have had competitive transmission processes and have proven that it saves customers money. They’ve also proven that it’s hard to do and that we have a lot more work to do on this, and it’s something the commission is going to continue to monitor and work on.

And with that, I will thank you again for the opportunity and look forward to your questions.

Thank you.

[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
United States House of Representatives

Hearing on
Oversight of the Federal Energy Regulatory Commission

April 17, 2018

Chairman Upton, 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). I have been at the Commission for nearly eight years now, and have appeared before the Committee several times. I am happy to do so today as part of a full Commission.

During my tenure at the Commission, much of our work has been driven by the transformation in our nation’s power supply. We are experiencing a significant increase in our reliance on natural gas for electric generation, due primarily to the increased availability and affordability of domestic natural gas, but also to the relative environmental advantages of natural gas and its role in balancing the growing fleet of variable resources. There is also considerable growth in renewable, storage, and demand-side resources, fostered by developments in technology and by policy initiatives at the state and federal levels. These transformative developments are not being driven by FERC but are shaping much of our work on markets, infrastructure (both natural gas and electric) and reliability standards. Today I will discuss two
of these topics – our regulation of wholesale electricity markets and interstate transmission planning.

Wholesale Markets

I will address four aspects of our work on wholesale markets, all of which relate to the aforementioned changing resource mix. The first aspect is rulemakings the Commission has undertaken to enhance competition by ensuring that all technologies can participate in the organized electricity markets. The second is market design changes to enhance price formation and improve resource performance during periods of system stress. The third is the expansion of organized electricity markets in the western U.S. The fourth is action to address increasing tension between FERC-jurisdictional electricity markets and state policies.

The organized wholesale electricity markets that provide electric service to over two-thirds of Americans are now roughly 20 years old. These markets arose from statutory and regulatory changes at the state and federal levels designed to promote greater competition in the electric sector. The hypothesis was that greater competition could yield substantial benefits for customers, and our years of experience with the markets have borne that out. Open and non-discriminatory access to the nation’s transmission system has lowered barriers to entry, increased competition, and spurred innovation. Regional planning for, and deployment of, electricity supply resources has yielded substantial efficiency gains and cost savings, while the attraction of at-risk capital into these markets has successfully shifted much of the investment risk from captive customers to investors.

We have realized these benefits while allowing for different regional market structures that reflect varied state and regional prerogatives. Most notably, some regions rely upon mandatory capacity markets to procure an adequate supply of resources to provide reliable
electric service to their customers. In other regions, resource adequacy remains the responsibility of individual states. A common feature across both market structures, however, is the use of competitive markets to price and deliver energy and ancillary services. This reflects the acknowledgment that deployment of available resources across a larger geographic footprint allows for more efficient utilization of those resources.

To increase competition and foster continued innovation in electricity markets, the Commission has worked over the years to ensure that market rules are fair to all technologies, including emerging technologies. These efforts include Order No. 764, which eased barriers to the incorporation of variable energy resources into the wholesale markets; Order No. 745, which addressed compensation for demand response resources; and Order No. 755, which required appropriate compensation for regulation service, including services provided by new resource technologies like energy storage. Most recently, the Commission in February issued Order No. 841 to address energy storage participation in wholesale markets, which Commissioner Glick will discuss.

In 2014, the Commission began an initiative to explore opportunities to improve price formation in energy markets operated by Regional Transmission Organizations, or “RTOs,” and Independent System Operators, or “ISOs.” The purpose of improved price formation is to send appropriate price signals to the marketplace as to what types of resources are needed by the system to deliver reliable service to customers, inform market participants where new resource entry may be necessary or beneficial, and provide information regarding when load should increase or curtail its energy consumption to minimize cost. To gather information on approaches to improve price formation, the Commission engaged stakeholders through a series of technical conferences. After consideration of that record, the Commission has taken a number
of actions. We issued a final rule to align settlement intervals with dispatch intervals, and to require the triggering of shortage pricing during any operating interval when a shortage of reserves occurs. We also issued a final rule addressing energy offer caps to ensure that resources are sufficiently compensated for the costs incurred to serve load, particularly during tight system conditions. More recently, we directed certain RTOs and ISOs to modify their market rules to address concerns that certain fast-start resources are not able to set market clearing prices when they are called upon to help meet demand. Taken together, these changes will improve the ability of these markets to provide accurate prices that incentivize rational supplier and customer behavior and promote efficient investment decisions.

In addition to price formation, the Commission has also approved market design changes to incentivize reliable generator performance. In response to the changing resource mix and the increasing incidence of extreme weather events, grid operators are placing an emphasis on generator performance during times of system stress. The Commission has approved capacity market design changes in the ISO New England and PJM regions to address concerns that resources lacked strong incentives to perform reliably during these most critical operational periods. These changes use strong market incentives to signal to resource owners the importance of investing in and maintaining their resources so they are prepared to deliver energy during peak demand periods and when unforeseen system conditions arise.

Another area of development is the expansion of organized electricity markets across the country, reflecting the increasingly broad recognition of the benefits they provide. Since I joined FERC in 2010, entities in Mississippi, Louisiana, Arkansas, Texas, and Missouri have elected to
join the Midcontinent ISO and participate in its energy markets. In 2015, entities in Iowa, Minnesota, Montana, North Dakota, South Dakota, and Wyoming opted to join the Southwest Power Pool, a grid operator and market administrator covering much of the central U.S. The Southwest Power Pool has also developed significant market enhancements in recent years, including adding a day-ahead market for energy and incorporating a price-based Operating Reserve Market.

Today, we are seeing the expansion of markets in the Western U.S. The Western Energy Imbalance Market, operated by the California ISO, has expanded in recent years to include utilities in Nevada, Arizona, Washington, Oregon, Idaho, and British Columbia. Additional utilities in California, Arizona, and Washington are slated to join by 2020. The Western Energy Imbalance Market allows for trading of energy among participating entities so they can adjust to changing supply and demand in real-time by efficiently dispatching the entities' collective resources across utility and state boundaries. The result is greater grid reliability at lower costs, a value proposition that is incentivizing more Western entities to consider joining the Energy Imbalance Market. The California ISO has also announced plans to offer day-ahead energy market services to its Energy Imbalance Market participants, a development that could drive additional cost savings for Western customers.

In addition, a group of electricity service providers in the Mountain West states, known as the Mountain West Transmission Group, announced last fall their intent to join the Southwest Power Pool.

1 http://timeline.misomatters.org/
2 https://spp.org/markets-operations/integrated-marketplace/
3 https://www.westernim.com/Pages/About/
Power Pool. They specifically cited reduced costs and greater resource and grid utilization as motivating factors for that decision.  

It is notable that these market expansions—both those that have been implemented and those now being contemplated—are being driven at the regional, state, and municipal levels, not by FERC. I believe this speaks to the increasingly broad recognition that sharing resources over a larger footprint can save money for customers by optimizing the use of existing generation and transmission assets and promoting greater competition in the development of new electric infrastructure.

Another issue the Commission has focused on extensively in recent years is the interplay between FERC-jurisdictional markets and state policies, a topic that Commissioner Powelson will address in greater depth in his testimony. Regions in the eastern U.S. that deregulated their generation years ago rely on FERC-jurisdictional capacity markets to ensure resource adequacy. Recently, however, rather than relying solely on the capacity market to select resources, states are enacting policies to procure a portion of their generation needs outside of the market by mandating bilateral contracting between a state’s load-serving utilities and resource developers or owners. The result is a tension between state prerogatives and the operation of the capacity market on which grid operators and the Commission rely to satisfy their resource adequacy responsibilities. While this is a challenging issue, I believe it is important that we allow for tailored regional solutions that seek to adapt wholesale market rules in order to preserve the benefits customers have derived from those markets while also respecting state policy choices to the extent practicable. I believe a proposal from ISO New England that the Commission recently

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approved is an example of how the Commission can constructively address this tension moving forward.

**Interstate Transmission Planning**

Under the Federal Power Act, the Commission has the authority to regulate wholesale interstate rates and interstate transmission service. In recent years, transmission spending has increased; in 2016, utilities located in regional transmission organization and independent system operator (RTO/ISO) regions spent about $21 billion on capital additions. The primary drivers of these increases include system upgrades and replacement of aging transmission infrastructure, improving grid security, system hardening to minimize the adverse impacts of catastrophic events, and the increasing development of geographically constrained renewable resources.

In light of the changes occurring in the electric industry, and based on the Commission’s experience in implementing Order No. 890, in July 2011 the Commission issued Order No. 1000. Order No. 1000 was intended to ensure that the transmission planning and cost allocation requirements of Order No. 890 continued to result in the provision of Commission-jurisdictional service at rates, terms and conditions that are just, reasonable and not unduly discriminatory or preferential. Building on the nine planning principles in Order No. 890, Order No. 1000 requires each public utility transmission provider to participate in a regional transmission planning process and an interregional coordination process that each include an ex-ante cost allocation method. Order No. 1000 also introduced additional competition into the transmission

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7 The planning principles identified in Order No. 890 include: coordination, openness, transparency, information exchange, comparability, dispute resolution, regional coordination, economic planning studies, and cost allocation.
planning process by allowing public utility transmission providers to use competitive bidding to solicit transmission projects or project developers.

Nearly seven years after the issuance of this landmark rule, the Commission has approved all but one regional compliance filing and all interregional compliance filings. While the majority of regions are in the early stages of implementing their processes, the Commission continues to monitor each region’s and pair of regions’ Order No. 1000 processes. To date, five transmission planning regions have held competitive proposal windows to evaluate transmission projects or developers. In those five transmission planning regions, non-incumbent transmission developers, or joint proposals between incumbent and non-incumbent developers, have been selected in several regions. I am pleased to see many regions implementing their approved transmission planning process, but I recognize that challenges remain, particularly with respect to the implementation of competitive processes for new regional transmission projects.

As part of the Commission’s monitoring of Order No. 1000 processes, in June 2016 the Commission held a technical conference to explore competitive transmission development since the issuance of Order No. 1000. The topics explored during this two day technical conference included the following: an overview of each region’s, or pair of regions’, transmission planning processes and discussion of possible improvements; the use of cost containment provisions in the transmission development process and how the subsequent rate filings should be reviewed by the Commission; the interaction of competitive transmission development processes with the Commission’s incentives policies, including transmission incentives and return on equity; and the status of interregional transmission development. In addition, the Commission issued transmission metrics reports in March 2016 and October 2017, which assessed transmission
investment patterns, and Commission staff continues to monitor transmission planning region stakeholder meetings and actions concerning transmission development.
I am honored to testify today as a Commissioner at the Federal Energy Regulatory Commission (FERC or Commission), where I have served since 2010. My testimony primarily addresses our regulation of wholesale electricity markets and will also touch on our oversight of interstate transmission planning.

Recent wholesale electricity market changes have been driven by the transformation in our nation's power supply. We are experiencing considerable growth in the use of natural gas for electric generation and in the development of renewable, storage, and demand-side resources. These transformative developments are not being driven by FERC but are shaping much of our work. The organized wholesale electricity markets that provide electric service to two-thirds of Americans are now roughly 20 years old, and they have delivered substantial benefit to customers. Regional planning for, and deployment of, electricity supply resources has yielded substantial efficiency gains and cost savings, while the attraction of at-risk capital into these markets has successfully shifted investment risk from captive customers to investors.

To increase competition and foster innovation, the Commission has worked to ensure that market rules allow all technologies to compete, including easing barriers to entry for new technologies like variable energy resources, demand response, and energy storage. Since 2014, the Commission has directed improvements to price formation so energy markets send accurate price signals and spur efficient investment decisions. The Commission has also approved market design changes to incentivize reliable generator performance during periods of peak demand or challenging system conditions. Finally, federal-state challenges have arisen in the eastern U.S. electricity markets as states exercise greater control over resource selection within regions that rely on FERC-jurisdictional capacity markets to provide resource adequacy. The Commission has been called upon to consider market design changes to address these challenges.

Another area of development is the expansion of organized electricity markets across the country. Grid operators in the Midwestern U.S. have expanded and incorporated significant energy and ancillary services market enhancements. Today, we are seeing the expansion of markets in the Western U.S., driven by an increasing recognition of the benefits markets provide.

Investment in transmission has also increased in recent years, driven by the need to replace aging transmission infrastructure, improve the security of the grid and harden it against adverse impacts of catastrophic events, and enable increasing development of geographically constrained renewable resources. It has been nearly seven years since the Commission issued its landmark Order No. 1000 rule to foster greater regional and interregional transmission planning. Much progress has been made in implementing regional planning and cost allocation, but challenges remain with respect to implementing competitive processes.
Mr. UPTON. Thank you.
Mr. Chatterjee, welcome. Good to see you.

STATEMENT OF NEIL CHATTERJEE

Mr. CHATTERJEE. Thank you. Great to see you, Chairman Upton, Ranking Member Rush, distinguished members of the subcommittee.

Thank you for the opportunity to appear before you today to discuss the important work FERC is doing to ensure that the American people have access to reliable and affordable energy.

As a former congressional staffer, it’s always a pleasure to be back on Capitol Hill, and I would like to note that while I came to the commission from the Senate, I began my career here in the people’s house and never allowed myself to become a Senate snob. I can’t say the same for all of my former colleagues.

I appreciate the subcommittee’s attention to the major energy issues facing our nation as well as its interest in the role the commission plays in addressing them.

I would like to focus my remarks today on our efforts regarding reliability and the Public Utility Regulatory Policies Act of 1978, or PURPA, and to touch briefly on a few of my other priorities. I will begin with a look in the area of energy policy affecting families and businesses across the Nation on a daily basis—reliability.

Congress delegated to FERC the responsibility to approve and enforce mandatory reliability standards for the grid, and with our partners at the North American Electric Reliability Corporation we remain committed to that endeavor. Our reliability standards have progressed considerably since they first became mandatory and enforceable just over a decade ago, and today they form an effective baseline for addressing day-to-day grid reliability issues like tree trimming, relay setting, communications, system planning, and emergency operations.

Another way the commission works to maintain reliability is through our oversight of jurisdictional wholesale energy capacity and ancillary services markets. For example, the commission has recently taken a number of actions to ensure all new generators provide essential reliability services such as voltage and frequency control. Those efforts are a good start but more work remains. Because of historically low natural gas prices and technological innovation, our country is experiencing rapid unprecedented changes in its generation resource mix. These trends promise tremendous benefits to consumers through lower prices and greater choice. But they also highlight a need for vigilance as we ensure that reliability is not adversely impacted.

I’ve been pleased to see the important work that ISO New England has done in this regard through its assessment of fuel supply vulnerabilities in its footprint. Its analysis is an excellent example of how RTOs and ISOs should proactively evaluate the specific regional risks. I expect that the implications of fuel security for grid reliability and resilience will continue to be areas of interest for the commission.

Finally, the commission is also taking action to address other emerging threats such as physical security, geomagnetic disturbances, and electromagnetic pulses. FERC and NERC have made
important strides on these issues and the commission remains actively engaged with our government partners and other stakeholders to improve our knowledge of these threats and evaluate creative ways to address associated risks proactively.

Now, turning to the second topic I would like to address, which is PURPA, today’s energy environment is fundamentally different from that of 1978, when PURPA was enacted. Because of this, many stakeholders are rightly asking whether changes to PURPA are needed to better align it with our modern energy landscape. While significant changes will require congressional action, I believe the commission should review our existing regulations to ensure they fulfill PURPA’s mandate of fostering the development of renewable and co-generation resources while protecting customers and competition.

Before I close, I would like to take a moment to talk to you on a couple of additional issues that I view as priorities. First, the commission’s current review of the 1999 certificate policy statement. As FERC considers how we evaluate natural gas pipeline applications, I am committed to ensuring that we have an efficient and transparent process that encourages landowner participation. From my perspective, our review should build upon our process improvement efforts under the recently signed MOU implementing Executive Order 13807, one Federal decision policy.

Second, I would like to emphasize my continued commitment to securing our grid against cyberattacks. While the administration has taken laudable steps already, I believe these challenges will continue to grow.

I strongly support the commission’s approach to addressing cyber threats which consists of mandatory standards as well as voluntary best practices and information sharing. Still, more work remains and I look forward to continued cooperation with my colleagues at the commission and our partners across the government.

I want to take my final seconds to commend this committee in particular for the work that you guys have done to really look into these significant issues, not just by holding this hearing but, Chairman Upton, under your leadership the past couple of years this committee has done tremendous work to bring focus to these enormously complex issue areas.

As an alumnus of Congress, I believe firmly in the legislative branch’s co-equal role in our government. And now having the good fortune to serve the American public at the commission, I have come to realize that in dealing with these enormous challenges we are constrained by the statutes that govern us.

But you all can take a leadership role in addressing some of these complex issues and I look forward to working with you and your colleagues to do that in the future.

[The prepared statement of Mr. Chatterjee follows:]
Introduction

Chairman Upton, Ranking Member Rush, and Members of the Subcommittee:

Thank you for the opportunity to appear before you today to discuss the important work we are doing at the Federal Energy Regulatory Commission. I appreciate the Subcommittee’s attention to the major energy issues facing our nation and the role that FERC plays in addressing them.

This is an exciting and transformational period for our nation’s energy future, and I take very seriously my responsibility to work with my colleagues on ensuring that all Americans have reliable and affordable energy. Today I will focus my remarks on the Commission’s efforts on reliability and the Public Utility Regulatory Policies Act of 1978 (PURPA), as well as an overview of my priorities as a Commissioner.

Reliability Standards

As you well know, Congress delegated to FERC the responsibility to approve and enforce mandatory reliability standards for the grid in the Energy Policy Act of 2005 (EPAct 2005). This authority is limited to the “bulk-power system,” as defined in Section 215 of the Federal Power Act (FPA), and excludes Alaska and Hawaii, as well as local distribution systems.

Under FPA Section 215, FERC cannot directly write or modify reliability standards, but must rely on a FERC-designated Electric Reliability Organization to perform this task. In 2006, FERC certified the North American Electric Reliability Corporation (NERC) as this Electric...
Reliability Organization. In addition to approving or remanding a reliability standard proposed by NERC, FERC has the authority to direct NERC to address a specific matter through a new or revised reliability standard, and at times, the Commission has done just that. Once FERC approves a proposed standard, it becomes mandatory and enforceable. An entity that violates an approved standard may be subject to enforcement by either NERC or FERC, as well as a potential monetary penalty.

Thanks to the Commission’s leadership and the dedicated efforts of NERC and industry, the reliability standards have matured considerably since they first became mandatory and enforceable in 2007. The reliability standards now form an effective “baseline” for addressing day-to-day grid reliability issues, like tree trimming, relay setting, communications, system planning, and emergency operations. The evolution of these baseline reliability standards has allowed FERC and NERC to focus more of their efforts on emerging threats such as cybersecurity, physical security and the potential grid impact of a geomagnetic disturbance (GMD). I and my fellow Commissioners will continue to work with our partners at NERC to address significant issues as they develop.

Interconnection Rules and Market Mechanisms
FERC also works to ensure reliability through its oversight of jurisdictional wholesale energy, capacity, and ancillary services markets. Evaluating the essential reliability services necessary for the stability of the grid has been at the forefront of the Commission’s recent efforts. Ensuring the continued provision of essential reliability services such as voltage control and frequency control is critical to maintaining the integrity of the grid during the transformation of our power supply portfolio.
As a result of this evaluation, FERC has taken several actions to modernize its interconnection requirements to ensure new generators provide certain essential reliability services. For instance, Order No. 827 eliminated the exemption for new wind generators from the requirement to provide reactive power. Similarly, Order No. 828 required newly interconnected small generators to ride through abnormal frequency and voltage events and not disconnect during such events, similar to the requirements already in place for large generators. And, just last month, in Order No. 842, FERC issued an order requiring that all resources newly interconnecting to the grid install and enable primary frequency response capability as a condition of interconnection.

Fuel Security Concerns Arising from Rapid Changes in the Generation Mix

The United States is experiencing rapid, unprecedented changes in its generation resource mix. A number of forces, including historically low natural gas prices and technological innovations, promise tremendous benefits to consumers through lower prices and greater choice. While this transformation may bring positive outcomes for consumers, it’s critical that we remain vigilant during this transition to ensure that reliability is not adversely impacted. For example, shifts in the generation mix increasing reliance on interruptible transportation of natural gas may in turn increase fuel security risks in certain circumstances, such as during periods of cold weather that drive heating demand, unless other resources or fuels are available. While some Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) have implemented market reforms to provide financial incentives to procure firm gas transportation or back-up fuels, utilities should continue to be mindful of the risk of relying too heavily on a particular pipeline or storage facility and should develop plans in case such a facility experiences an outage.
Competitive markets are generally the best approach for encouraging utilities to make reasonable fuel choices. However, even with competitive markets, reliability requires careful planning and analysis to ensure that risks are anticipated and addressed when necessary. To this end, I would highlight the important work that ISO-New England has done to assess the specific fuel supply vulnerabilities in its region. I think ISO-New England’s analysis is an excellent example of how RTOs and ISOs should proactively evaluate their specific regional risks. I expect that issues of fuel security will continue to be an area of interest for the Commission, both within our discussion of reliability as well as within our ongoing resilience proceeding.

Physical Security Requirements

In 2014, FERC directed NERC to develop a reliability standard to address physical security threats. Later that year, FERC approved NERC’s proposed physical security reliability standard which requires three main elements. Utilities must: (1) identify their critical transmission facilities; (2) pinpoint the relevant threats and vulnerabilities for those facilities; and (3) develop and implement a plan to address those threats and vulnerabilities, including measures designed to deter, detect, delay, assess, communicate, and respond to potential physical threats.

In addition to this mandatory approach, FERC also works collaboratively with utilities on physical security issues. For example, our staff, in collaboration with other federal agencies, provides subject matter experts to conduct in-depth physical security reviews of key energy infrastructure facilities, assessing their vulnerabilities to current threats and emerging exploits.

GMD

The Commission has also taken steps to help mitigate the potentially catastrophic effects of geomagnetic disturbances, or GMDs, which primarily result from coronal mass ejections during
normal cyclical activity of the sun. These events produce solar storms that can hurl charged particles at the earth causing variations in the magnetic field. These variations can result in destructive geomagnetically induced currents (GIC) that flow through the earth’s crust, eventually finding their way to the electric power grid. Excessive GIC flow can cause overheating in transformers and other phenomena such as distorting harmonics or significant reactive power absorption. These occurrences can result in severe impacts through widespread outages on the electric power grid.

To address the risks posed by GMD events to the reliable operation of the bulk-power system, the Commission issued Order No. 779 in 2013 requiring NERC to submit proposed reliability standards, in two stages. The first-stage standard, which the Commission approved in 2014, required owners and operators of the bulk-power system to develop and implement operational procedures to mitigate the effects of GMDs. The second stage, approved in 2016, required owners and operators to assess potential GMD impacts on the bulk-power system and, based on those assessments, to develop and implement plans to protect against instability, uncontrolled separation, or cascading failures of the bulk-power system resulting from certain benchmark GMD events. Under this reliability standard, applicable entities must assess the vulnerability of their systems to a benchmark GMD event (i.e., a one-in-100 year event) and develop a corrective action plan if the assessment indicates that the system will not meet certain performance requirements following such an event.

In addition to the mandatory reliability standards, FERC staff advises jurisdictional infrastructure owners and operators on securing their systems from naturally occurring or emerging threats including GMDs. The Commission’s Office of Energy Infrastructure Security (OEIS) works with other federal, state, local, and foreign government organizations while also participating in the
Space Weather Operations, Research, and Mitigation subcommittee established by Executive Order 13744. Additionally, FERC will be working with DOE to develop a pilot program to evaluate mitigation devices, as required by Executive Order 13744, regarding coordination among agencies to prepare the nation for space weather events.

**EMP**

An electromagnetic pulse (EMP) is a short burst of electromagnetic energy that can be of either natural or manmade origin. EMP is often associated with the electrical phenomenon that accompanies the high altitude detonation of a nuclear device but also can be produced by other electrical phenomena. Intentional Electromagnetic Interference (IEMI) devices are man-made and built to produce similar effects. These high energy pulses from EMP or IEMI can disrupt or damage electronic devices— including control systems and large transformers— and can cause power outages and adversely impact pipeline and hydroelectric equipment.

Although there are no current or planned NERC reliability standards or existing regulations to address EMP or IEMI, FERC staff has been working with industry, manufacturers, the states, other government agencies, and international partners to help recognize and quantify the threat and vulnerabilities to jurisdictional energy infrastructure and to identify effective mitigation and counter measures. As part of this effort, staff collaborates with agencies and organizations that either control information regarding vulnerabilities to EMP or have taken action to address them. Currently, Commission staff also participates in EMP programs directed by the Department of Homeland Security and the Department of Energy, including those required under the Fixing America’s Surface Transportation (FAST) Act and those recommended in a recent Government Accountability Office report to Congress on EMP.
PURPA

In 1978, Congress enacted PURPA to foster the development of alternative energy resources and conserve what were then thought of as scarce resources, such as natural gas. Since that time, PURPA has played an important role in fostering the development of renewable technologies and the electric industry’s transition to competitive markets. However, it’s worth noting that the energy landscape that existed when PURPA was conceived was fundamentally different from that of today. That is to say, solar and wind power were fledgling technologies, there was no open access to wholesale electricity markets, and natural gas was in scarce supply. None of those things are true today. Moreover, many states have encouraged the development of renewable generation through renewable portfolio standards, and Congress adopted the Production Tax Credit to further spur renewable development. Congress acknowledged the impact of many of these changes by amending PURPA as part of EPAct 2005.

Now, many in the industry are asking whether PURPA needs changes to align with the realities of our modern energy landscape. For example, the president of the National Association of Regulatory Utility Commissioners, which represents the state utility regulators responsible for implementing much of PURPA, sent a letter to FERC this past December on this issue. In it, he urged the Commission to adopt a number of reforms to balance PURPA’s goals of providing rates that are just and reasonable for electric consumers while also protecting PURPA qualify facilities (QFs) from discrimination.

While significant changes to the implementation of PURPA will require Congressional action, I believe the Commission should continue to review its regulations to determine whether changes could be beneficial. Specifically, I support reviewing our existing regulations to ensure that they
fulfill PURPA’s mandate to encourage the development of renewable and cogeneration resources while protecting customers and preserving competition.

2016 Technical Conference and Subsequent Comments
In June 2016, the Commission held a technical conference to solicit the views of diverse stakeholders on PURPA implementation. Subsequent to the technical conference, the Commission issued a request for comments on two issues: (1) the “one-mile rule” used to determine the eligibility of an entity seeking certification as a small power production qualifying facility, and (2), minimum standards for PURPA purchase contracts.

Unless the Commission undertakes additional steps to expand the record, any changes to our current implementation of PURPA would likely build on the record that the Commission developed at the June 2016 technical conference and through the comments submitted thereafter. I plan to continue working with my colleagues to determine the best path forward on this issue.

Other Priorities
I also would like to note another matter that I view as a priority for the Commission. FERC is currently undertaking a review of the 1999 Certificate Policy Statement, which guides our consideration of new natural gas pipeline certificates. I think it’s essential that the Commission get this issue right; we must balance consumers’ needs for abundant, affordable energy while ensuring the rights of landowners are respected. The shale gas revolution has led to a corresponding increase in pipeline construction. As the Commission considers how we evaluate applications to construct pipelines, I am committed to ensuring that we have an efficient, transparent, and predictable process that encourages landowner participation. The
Administration MOU that FERC recently signed will help meet that goal, and I believe this policy statement review is the next step in the process.

Finally, I would also like to emphasize my continued commitment to securing our grid against cyber-attacks. While the Administration has taken significant steps to address cyber threats to our critical infrastructure, I believe that these threats will continue to grow. Sophisticated hacking tools are becoming more widely available, and cyber threats are constantly evolving making such attacks more versatile. To combat these evolving threats, both government and industry must remain vigilant and work collaboratively to address these complex issues. At the Commission, I strongly support our two-pronged approach to addressing cyber threats, which consists of a combination of mandatory reliability standards as well as voluntary best practices and information sharing. Even still, more work remains on this issue, and I look forward to continued collaboration with my colleagues at the Commission and our partners across the government to ensure we’re taking the proper steps to defend against future cyber-attacks.

Conclusion

Again, I appreciate the opportunity to come before you today. It’s critical that we at the Commission work together with other agencies as well as Congress to address the various issues currently facing America’s energy future, and I look forward to continuing this important dialogue.

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This is an exciting and transformational period for our nation’s energy future, and I take very seriously my responsibility to work with my colleagues on ensuring that all Americans have reliable and affordable energy. Reliability has been, and will remain, a top priority for myself and my colleagues at the Commission. The maturation of the North American Electric Reliability Corporation’s mandatory reliability standards has allowed the Commission and industry to focus additional resources on emerging threats such as fuel security, cyber security, physical security, geomagnetic disturbances, and electromagnetic pulses.

I also support the Commission’s efforts to reevaluate its existing policies and regulations from time-to-time. Specifically, I support reviewing our regulations implementing the Public Utility Regulatory Policies Act of 1978 to ensure they encourage the development of renewable and cogeneration resources, while protecting customers and preserving competition. In addition, as part of our review of the Commission’s of the 1999 Certificate Policy Statement, I am committed to ensuring that we have an efficient, transparent, and predictable process that encourages landowner participation.

Finally, I would also like to emphasize my continued commitment to securing our grid against cyber-attacks by working with my colleagues at the Commission and our partners across the government.
Mr. UPTON. Well, thanks for your kinds words. I know that those are shared on both sides of the aisle so appreciate that.
Commissioner Powelson, welcome.

STATEMENT OF ROBERT POWELSON

Mr. Powelson. Good morning, Chairman Upton, Ranking Member Rush, and members of the subcommittee. I also want to echo what my colleagues have said earlier in thanking you for inviting us here this morning.

My name is Robert Powelson. I am honored to serve as the commissioner on the Federal Energy Regulatory Commission. In fact, I was honored to go through the process with my colleague, Commissioner Chatterjee, and let me just say it's an honor to serve in this capacity.

Before joining the commission in August, I spent 9 years as a member of the Pennsylvania Public Utility Commission. I spent 4 1A1⁄2 years as chairman and I also had the honor in 2017 of serving as president of the National Association of Regulatory Commissioners. So when I look to my right and my left, the people I serve with here, it's a collegial body and the people that represent this agency are world class, as demonstrated in recent rankings as a Federal agency.

My experience, Mr. Chairman, as a State regulator and my interaction with colleagues at the State commission level across the country, have informed in my appreciation and understanding of the FERC's role in interfacing with the States. Since joining the commission, I've approached each of my decisions with an understanding of how the determinations impact, as was mentioned earlier, families and businesses nationwide. I've also prioritized my engagement with stakeholders from all backgrounds and geographic regions to ensure that I hear a variety of viewpoints and my decisions are fully informed.

For purposes of my testimony here this morning, I am focusing on two areas. First, I will discuss the evolving grid, in particular, how the Nation's generation resource mix has changed in just the last decade. The second issue is one of just a huge priority for all of us, and that's the proactive cybersecurity work that the FERC is doing.

Now, when we talk about the changing electric grid, or some would call it the evolving grid, what's interesting is I look at my experience in Pennsylvania where, in 2008, most likely 50 percent of our dispatch was from coal. And now, with the evolution of shale plays like Marcellus, Utica, and the plays in Louisiana and Texas and Arkansas, there has been a drastic shift in our power mix and it's having a profound impact on wholesale power prices in a good way. It's actually, in my home State, has brought a $5 billion investment in ethylene cracker to Beaver County, Pennsylvania. It's also changed at the local—we'll call burner tip—where customers with gas purchase costs in LDCs across Pennsylvania—seven LDCs—have dropped over 70 percent, a direct pass-through savings to customers in the State of Pennsylvania.

When we talk about the evolving grid, though, it's also important to mention the impact that new resources are having. As mentioned earlier by Chairman Walden, the evolution of battery stor-
age, renewable energy, and the impact it’s also having on the grid is critically important. Last year in our bulk power system, 10 percent of our dispatch power came from renewable energy resources. A number of states over the last decade have adopted very successful renewable portfolio standards.

I should note for my good friends from the State of Texas is the number-one wind producer in the country—shout out to Chairman Barton and Ranking Member Olson as well—and it speaks to the evolution, again, of our modern-day grid.

Now, another tectonic shift is also taking place in our grid and, unfortunately, it has to deal with the flat demand for electricity. As I like to say, the way we generate, transmit, and distribute power in this country is ever changing. The fact of the matter is the grid is getting more efficient, it’s getting more resilient, and it’s clearly getting cleaner. But we are also offering tools to customers. Those tools include things like energy efficiency, real-time pricing—as mentioned earlier, in certain states like Texas and Pennsylvania and New Jersey, the ability to go out and shop for retail energy supply. And I note that because a lot of customers are out in the market—residential and industrial customers.

The last item I want to touch on is cybersecurity, and I think cyber is really one that keeps us all up at night, and I am just very proud of the work that this commission has done, going back to our former chairman, Commissioner LaFleur, and really working with the States, Mr. Chairman, to develop protocols and cyber capacities within the State public utility commissions, and I will talk about that later on here in the hearing.

There’s been a number of changing threat vectors in the bulk power system. There are a number of bad actors out there that want to infiltrate industrial control systems and wreak havoc on our bulk power system.

But I am proud to report, again, to the work of the Federal Energy Regulatory Commission, working with the Department of Homeland Security. More recently, the leadership demonstrated by Secretary Perry with the launch of the Office of Cybersecurity within DOE is another great step forward in addressing overall cybersecurity in this country.

So, Mr. Chairman, I look forward to today’s conversation and appreciate the opportunity to be with you and your colleagues.

[The prepared statement of Mr. Powelson follows:]
Chairman Upton, Ranking Member Rush, and members of the Subcommittee, thank you for holding this hearing and for the invitation to appear before you today. My name is Robert Powelson and I am honored to serve as a Commissioner of the Federal Energy Regulatory Commission (FERC or Commission).

Before joining the Commission in August of 2017, I spent nine years as a member of the Pennsylvania Public Utility Commission. My experience as a state utility regulator and my interaction with colleagues at state commissions across the country have informed my appreciation and understanding of FERC’s important mission. Since joining the Commission, I have approached each decision with a deep understanding of how our determinations impact families and businesses nationwide. I have also prioritized engagement with stakeholders from all backgrounds and geographic regions to ensure that I hear a variety of viewpoints and my decisions are fully informed.

Today, my testimony will focus on two key areas. First, I will discuss the evolving electric grid, and in particular, how the nation’s generation resource mix is changing in light of technological innovation, evolving consumer preferences, and state
policy initiatives. Second, I will discuss the Commission’s cybersecurity initiatives, and specifically highlight how interagency coordination has helped further our goals with respect to pipeline security.

The Changing Electric Grid

The electric grid has historically been a one-directional, centralized system designed for reliable service at least cost. However, evolving consumer preferences and technological innovation are forcing the grid to adapt to new realities.

One major driver behind the evolution of the grid is the changing generation mix. Led by advancements in production technologies, primarily in accessing shale reserves, domestic natural gas supplies have increased dramatically. The United States now has access to large deposits of affordable natural gas and many parts of the country are experiencing one of the greatest generation fuel shifts in our history. At the same time, consumer preferences have driven increased investment in, and deployment of, renewable energy resources and simultaneously set in motion energy policy discussions in states across the country. The integration of renewables into the grid has skyrocketed, and with the advent of large scale battery storage, microgrids, and smart cities, innovation has also been a key driver behind the changing electric grid. These resources have the potential to turn the one-directional, centralized electric grid into a multi-directional, de-centralized grid that utilizes technological innovation to produce consumer benefits and increase the reliability and resilience of the bulk power system.
In recognition of this trend, the Commission has undertaken efforts to foster continued innovation. To level the playing field and allow for new technologies to participate in wholesale markets, the Commission issued a final rule on energy storage that directed grid operators to remove barriers to the participation of electric storage resources in the capacity, energy, and ancillary services markets (Order No. 841). On April 10-11, 2018, the Commission also held a technical conference on the participation of distributed energy resources (DERs) in organized markets. These proceedings are examples of the Commission’s efforts to proactively respond to the changing grid and any challenges that may arise.

States have also been influential in the evolution of the electric grid. Some states have proactively encouraged the changing resource mix by establishing goals or mandates for energy production from certain types of generation. Conversely, other states have reacted by creating mechanisms to ensure that certain generation resources remain operational. These decisions by states, whether proactive or reactive, have implications for FERC-jurisdictional wholesale markets.

Traditionally, the nation’s electric utilities were vertically integrated. Under this model, state regulators engage in integrated resource planning to ensure there is sufficient generation to meet forecasted energy demand. However, in the late 1990s and early 2000s, many state legislatures across the country voluntarily restructured their electric utilities. These states moved away from integrated resource planning and instead began...
to rely on centralized grid operators to ensure resource adequacy, largely through competitive energy and capacity markets.

Through competition, these markets have done exactly what they were designed to do: produce a reliable and affordable generation mix in a fuel-neutral manner. At the same time, the abundance of low-cost natural gas, combined with a reduction in demand for electricity, have placed downward pressure on wholesale energy prices. These low prices have been a factor in the retirement of some traditional baseload resources that cannot compete with gas-fired and renewable generation. In light of this, some states in restructured markets have enacted policies to assist or procure certain resources outside of the market.

These actions by states, regardless of their motivation, have implications for wholesale energy and capacity markets and determining how to respond to them is complicated. While FERC respects state authority, it is also obligated to ensure that rates in wholesale electricity markets are just and reasonable. In restructured states, competitive markets have led to increased efficiencies, environmental benefits, and reduced costs for consumers. Thus, a primary focus for FERC is ensuring that wholesale electricity markets continue to provide these benefits. At the same time, we recognize there is always room for improvement, and the Commission is willing to consider changes to market mechanisms that effectively balance the often competing interests of states, market participants, and consumers.
Today, numerous proceedings to address the impacts of state policy initiatives in wholesale electricity markets are pending before the Commission and federal courts. In mid-2017, following a series of complaints filed at FERC regarding out-of-market state subsidies, the Commission held a two day technical conference to explore the impacts of state policies on FERC-jurisdictional capacity markets. In addition, the Second and Seventh Circuits of the U.S. Court of Appeals have cases pending regarding the potential preemption of state Zero Emissions Credit (ZEC) programs.

Recently, the Commission approved a proposal by ISO-New England, Inc. to accommodate state-subsidized resources in its capacity market. As evidenced by a 3-2 vote and my separate statement, the Commission has varying views on how to address this issue going forward. Even so, it is time for the Commission to provide much needed certainty to market participants on this matter. The open proceedings discussed above provide the procedural vehicle through which the Commission can provide this regulatory certainty and ensure that it effectively responds to the changing marketplace.

Cybersecurity

The Commission takes seriously its role in protecting the nation’s energy infrastructure, both from physical and cyber vulnerabilities. Pursuant to the Energy Policy Act of 2005 (EPAct 2005), the Commission is responsible for overseeing mandatory, enforceable reliability standards for the bulk power system. The reliability standards, which apply to the users, owners, and operators of the bulk power system, are developed by the North American Electric Reliability Corporation (NERC) in
consultation with stakeholders and approved by the Commission. The requirements pertaining to cybersecurity, the Critical Infrastructure Protection (CIP) standards, specify mandatory requirements for utilities, including: how to identify and categorize cyber assets and systems; processes and procedures for maintaining these systems; and ensuring that only appropriate personnel have access to these systems, among others.

Cybersecurity threats are continually evolving. In response, the Commission must remain vigilant in refining its standards and developing new standards to address emerging threats. Recent actions by the Commission include work by its Office of Electric Reliability (OER) initiating rulemaking proceedings to propose: (1) approving new mandatory reliability standards to bolster supply chain risk management protections for the grid; and (2) the development of a revised CIP standard to improve mandatory reporting of cybersecurity incidents.

In addition to developing reliability standards, the Commission conducts outreach to other federal agencies, state utility commissions, and the private sector on cyber related issues. Through its Office of Energy Infrastructure Security (OEIS), the Commission works with outside entities to help identify threats to energy infrastructure, share information, and promote voluntary mitigation practices that complement the mandatory security standards. Engaging with the community in this way, outside of a traditional FERC proceeding, facilitates a useful exchange information and sharing of best practices.
Agencies the Commission works with include the Department of Energy (DOE), the Department Homeland Security (DHS), the Federal Bureau of Investigation (FBI), the Nuclear Regulatory Commission (NRC), the Department of Defense (DOD), National Security Agency (NSA), U.S. Coast Guard (USCG), and the Transportation Safety Administration (TSA). The Commission assists these agencies in maintaining an awareness of emerging threats and the capabilities of adversaries who may initiate a cyber or physical attack on the nation’s energy infrastructure.

One example of an interagency project the Commission was involved in is with USCG and TSA. The Cybersecurity Architecture Review program (Review Program) is a collaborative, non-regulatory approach that promotes secure and resilient infrastructure through the sharing of information and best practices. The goal of the Review Program is to gain a comprehensive understanding of an entity’s overall cybersecurity posture, identify potential areas of concern, and articulate actionable recommendations and observations that promote positive change to the security of the organization.

The Commission also participates in DHS’s National Cybersecurity Communications and Integration Center, a round-the-clock center for cyber situational awareness, incident response, and management, which serves as a national nexus of cyber and communication integration for the federal government, intelligence community, and law enforcement. At the state and regional level, OEIS staff provides targeted support and involvement with State Fusion Centers to assist with incidents and mitigation, as well as adoption of best practices using new approaches and technology.
The Commission, through its OEIS staff, also works with Information Sharing Analysis Centers (ISACs), including NERC’s E-ISAC (electric and hydroelectric), ONG-ISAC (oil and natural gas and LNG terminals), and DNG-ISAC (downstream natural gas facilities). Together with NERC’s E-ISAC, the Commission has worked to initiate, develop, and issue security alerts and other vehicles (e.g., bulletins, blogs) to industry in near real-time to address cyber and physical security threats. Thus, the Commission makes interagency coordination a priority and participates extensively in intelligence-related collaboration efforts on cyber issues.

The Commission also plays a role in pipeline security. Pursuant to section 7 of the Natural Gas Act, the Commission reviews applications for construction and operation of interstate natural gas pipelines. Under this review, the Commission ensures that applicants certify that they will comply with Department of Transportation (DOT) safety standards. FERC itself has no jurisdiction over pipeline safety or security, but actively works with other agencies with safety and security responsibilities.

For example, the Commission has actively been engaged with TSA as they update their Pipeline Security Guidelines. TSA developed these guidelines to provide a security structure for pipeline owners and operators to voluntarily use in developing their security plans and programs. The guidelines also serve as a standard for TSA’s pipeline security

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1 An ISAC is a nonprofit organization that provides a central resource for gathering information on cyber threats to critical infrastructure and providing two-way sharing of information between the private and public sector.
assessments. TSA is currently working with stakeholders to update these guidelines and the Commission has provided technical review and assistance.

The frequency of cyber and physical threats to the nation’s energy infrastructure is only increasing. The Commission is aware of this and has made cyber and physical security a top priority. Through OER and OEIS, the Commission will continue to update its reliability standards and coordinate with its interagency partners to prevent cyber and physical security risks to jurisdictional energy infrastructure.

Chairman Upton, Ranking Member Rush, and members of the Subcommittee, thank you again for the opportunity to testify today. I look forward to answering your questions.
One-Page Summary of Testimony of Robert F. Powelson
Federal Energy Regulatory Commission
Committee on Energy and Commerce, Subcommittee on Energy
United States House of Representatives
April 17, 2018

My name is Robert Powelson and I am honored to serve as a Commissioner of the Federal Energy Regulatory Commission (FERC or Commission). Thank you for holding this hearing and for inviting me to appear today. My testimony will cover two main issues: (1) the evolving electric grid; and (2) the Commission’s cybersecurity initiatives.

In recent years, changing consumer preferences and technological innovation have forced the nation’s electric grid to adapt to new realities. One significant cause of this evolution is the changing generation mix due to an abundance of low-cost, domestic natural gas. Other key drivers behind the changing electric grid are an increased investment in renewable energy and innovative technologies.

Recognizing this, the Commission has taken steps to foster innovation and remove barriers to new technologies. Recently, the Commission issued a final rule on energy storage (Order No. 841) and held a technical conference on the participation of distributed energy resources (DERs) in organized markets. These proceedings are examples of the Commission’s efforts to proactively respond to the changing grid and any challenges that may arise.

States have also been influential in the evolution of the grid. Whether by establishing mandates for energy production from certain types of generation or by creating mechanisms to ensure that certain resources remain operational, recent state actions have implications for wholesale energy and capacity markets. FERC respects state authority, but also must ensure that rates in wholesale electricity markets are just and reasonable. As evidenced by a recent 3-2 vote in an ISO-New England proceeding raising this issue, the Commission has varying views on how to address the impact of state policies on organized markets. However, with other pending proceedings before us, the time ripe for the Commission to act on these issues and provide the market with the regulatory certainty it needs.

Cybersecurity is another important issue for the Commission. We take seriously our role in protecting the nation’s energy infrastructure, both from physical and cyber vulnerabilities. The Commission is vigilant in continually refining and developing new reliability and cyber security standards to address emerging threats. The Commission is also proactive in its outreach, education, and interagency coordination to help outside parties identify and mitigate cyber and physical threats to energy infrastructure.
Mr. Glick. Thank you, Mr. Chairman, and thank you, Ranking Member Rush, and members of the subcommittee. Thank you for the opportunity to testify this morning.

As a former minority general counsel to the Senate Energy and Natural Resources Committee—and maybe I am a snob, according to Commissioner Chatterjee—but as a former counsel to the Committee, it’s nice to be back on Capitol Hill and it’s good to see some familiar faces from the Joint House and Senate Energy Bill Conference that took place during the last conference. I’ve been a member of the Federal Energy Regulatory Commission for almost 5 months. During this short period of time, the commission has been called upon to consider a number of challenging matters.

Although FERC is not typically an agency that receives a substantial amount of public attention, the commission’s actions have a significant impact on the lives of everyday Americans. I witnessed this first-hand while at the Department of Energy at the end of the Clinton administration. The commission’s inability to come together on a unified response during the height of the Western energy crisis in 2000 caused consumers to pay significantly more for electricity and natural gas than they should have. It is imperative that the five of us safeguard—work together to safeguard to public’s interest.

As everyone here knows, we are in the midst of a dramatic transformation in the ways Americans produce and consume energy. This revolution has the potential to substantially improve our energy efficiency, reduce emissions, grow the economy, and create millions of new jobs. FERC can help facilitate this transition by removing the barriers to participation and competition that exist in the wholesale markets. For instance, the commission can examine market rules to ensure that they are not unduly discriminating against new technologies.

In February, FERC voted 5–0 to approve a final rule requiring RTOs and ISOs to facilitate energy storage participation in wholesale electric markets. Storage technologies such as batteries and pumped hydro have the potential to play a leading role in the transition to the electricity system of the future.

As the cost of energy storage continues to decline, these resources are poised to become a bigger part of the generation mix, leading to the development of a more robust grid that can, among other things, help to accommodate the ever increasing demand for clean renewable resources from States, corporations, and residential customers. In addition, these storage resources will enhance the reliability and resilience of the grid by also reducing electric rates.

Today, the cost of using lithium ion battery technology is less than one-quarter of what it was at the start of the decade. Partly as a result of those declining costs, industry forecasts project that the Nation’s installed energy storage capacity will increase by 750 percent in just 5 years. The commission’s action to reduce barriers to help reduce barriers to energy storage resource participation in
wholesale markets will help to further this remarkable trajectory, all the while reducing consumer energy bills.

I believe FERC, pursuant to the Federal Power Act, should also identify and eliminate other barriers to participation of new energy technologies and wholesale markets. For example, the commission last week held a technical conference to examine the potential participation of aggregated distributed energy resources in wholesale markets and the benefits these resources could provide.

Chairman Upton and Ranking Member Rush, thank you again for the opportunity to appear before the committee today. I look forward to answering your questions and the questions of your colleagues.

[The prepared statement of Mr. Glick follows:]
Written Testimony of FERC Commissioner Richard Glick

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

Hearing on
Oversight of the Federal Energy Regulatory Commission

April 17, 2018

Chairman Upton, Ranking Member Rush, and Members of the Subcommittee. Thank you for the opportunity to testify this morning.

As a former Minority General Counsel to the Senate Energy and Natural Resources Committee, it is nice to be back on Capitol Hill and it is good to see familiar faces from the joint House and Senate energy bill conference that took place during the last Congress.

I have been a Member of the Federal Energy Regulatory Commission (FERC or Commission) for almost five months. During this short period, the Commission has been called upon to consider a number of challenging matters.

Although FERC is typically not an agency that receives substantial public attention, the Commission’s actions have a significant impact on the lives of everyday Americans. I witnessed this first hand while at the Department of Energy. The Commission’s inability to come together on a unified response during the height of the western energy crisis in 2000 caused consumers to pay significantly more for electricity and natural gas than they should have. It is imperative that the five of us safeguard the public interest.
As everyone here knows, we are in the midst of dramatic transformation in the ways Americans produce and consume energy. This revolution has the potential to substantially improve our energy efficiency, reduce emissions, grow the economy, and create millions of new jobs. FERC can help facilitate this transition by removing the barriers to participation and competition that exist in the wholesale markets. For instance, the Commission can examine market rules to ensure they are not unduly discriminating against new technologies.

In February, FERC voted 5-0 to approve a final rule requiring RTOs and ISOs to facilitate energy storage participation in wholesale electric markets. Storage technologies – such as batteries and pumped hydro – have the potential to play a leading role in the transition to the electricity system of the future. As the cost of energy storage continues to decline, these resources are poised to become a bigger part of the generation mix, leading to the development of a more robust grid that can, among other things, help to accommodate the ever-increasing demand for clean, renewable resources from states, corporations, and residential consumers. In addition, these storage resources will enhance the reliability and resilience of the grid, while reducing electric rates.

Today, the cost of using lithium-ion battery technology is less than one quarter of what it was at the start of the decade. Partly as a result of those declining costs, industry forecasts project that the nation’s installed energy storage capacity will increase by 750 percent in just five years. The Commission’s action to reduce barriers to energy storage resources’ participation in wholesale markets will help to further this remarkable trajectory, all while reducing consumer energy bills.
I believe FERC, pursuant to the Federal Power Act, should also identify and eliminate other barriers to the participation of new energy technologies in wholesale markets. For example, the Commission last week held a Technical Conference in April to examine the potential participation of aggregated distributed energy resources in wholesale markets and the benefits these resources could provide.

Chairman Upton and Ranking Member Rush, thank you again for the opportunity to appear before the Committee today. I look forward to answering your questions and the questions of your colleagues.
One-Page Summary
Written Testimony of FERC Commissioner Richard Glick
Before the Energy and Commerce Committee
Energy Subcommittee
United States House of Representatives

April 17, 2018

I have been a Member of the Federal Energy Regulatory Commission (FERC or Commission) for almost five months. During this short period the Commission has been called upon to consider a number of challenging matters.

FERC can help facilitate the ongoing energy technological revolution by removing the barriers that exist in the wholesale markets. For instance, the Commission can examine market rules to ensure they are not discriminating against new technologies.

In February FERC voted 5-0 to approve a final rule requiring RTOs and ISOs to facilitate energy storage participation in wholesale electric markets. I believe FERC, pursuant to the Federal Power Act, should also identify and eliminate other barriers to the participation of new energy technologies in wholesale markets.
Mr. UPTON. Well, thank you all. Appreciate you being here, and the first thing that I want to raise—I don’t know if you saw today’s Washington Post. This is a copy of it. I should have made copies for you. But the headline is “U.S., British Governments Warn Businesses Worldwide of Russian Campaign to Hack Routers,” and it quotes the Homeland Security assistant secretary for Cybersecurity, and she says, “Once you own the router you own the traffic that’s traversing the router.” And it’s pretty clear in this story—it starts off the U.S. and British governments on Monday accused Russia of conducting a massive campaign to compromise computer routers and firewalls around the world from home offices to internet providers for espionage and possible sabotage purposes.

And as you may know, we are planning to markup tomorrow a bill that’s going to help coordinate things with the Department of Energy that I believe at least at this point looks to have pretty widespread bipartisan support by virtually all of the members of this subcommittee is what I am told in advance, but, got to wait until you get there.

So, Chairman McIntyre, my question is it’s my understanding that DOE has offered an open invitation for FERC commissioners to receive intelligence briefings on cyber-related threats and I am curious to know how many of those you might have taken up with you and your fellow commissioners in terms of the briefings that have been offered?

Mr. MCINTYRE. Thank you, Mr. Chairman. I don’t know the exact number.

Mr. UPTON. Obviously, this is an open setting so I caution everyone in terms of what they might say.

Mr. MCINTYRE. Yes, sir. But let me just note up front that the issue that you have raised here we would be hard pressed to identify one of greater concern to us as an energy industry, as regulators of that industry, and, indeed, as a nation in terms of national security in this threat of cyberattacks from bad actors, in many cases, state actors such as you have identified.

We are increasingly working with DOE and other components of the Federal Government on a daily basis, mostly at the staff level, Mr. Chairman, to ensure that we stay on top of these issues and take all appropriate measures that are available to us, and I know that the staff of each and every one of my colleagues here has been very much engaged in that process.

You are correct that we have been offered personal briefings that we are I think in the process of scheduling and taking. Very, very helpful. The DOE has been very helpful in this regard—DHS, TSA—and our level of engagement on this I think will only continue to increase.

Mr. UPTON. Do you believe that there’s any additional statutory authority that FERC may need, as you look to the future?

Mr. MCINTYRE. That’s a good question. In 2005, we were given the role of ensuring that reliability is intended to—through our oversight of the electric reliability organization of the Nation and the reliability standards promulgated by it. And I believe that we are making good use of that authority. I don’t have a specific area right now that I can identify as something where we would need broader statutory authority.
I am very pleased with this level of increased Federal engagement that I described. My colleagues may wish to add their own——

Mr. UPTON. Yes, and maybe also can you shed any light on the degree and frequency of cyberattacks on the energy infrastructure?

Mr. MCINTYRE. Attacks are constant, but the degree of severity and from the perspective of the perpetrators, success, that is what varies. But every day, not just governmental entities but, indeed, the companies that we regulate are subject to attacks and attempted attacks.

Mr. UPTON. I would appreciate hearing from the other commissioners as well.

Mr. CHATTERJEE. Thank you, Mr. Chairman.

I think in terms of the interactions that we’ve had with DOE and other agencies, I have the good fortune to represent the commission at an ESCC—Electric Sector Coordinating Council—meeting with a number of stakeholders across the government and industry looking at these serious issues. I also got to participate in a delegation that included DOE, DHS, and FERC to travel to Israel to learn about best practices and ways to stay ahead of these ever-evolving threats.

It’s something that I think my colleagues and I all take very seriously. It is the new reality that we must contend with. As we benefit and gain from the technological innovation that’s taking place in this space we have to be cognizant that it comes with that downside risk of increased cyber vulnerability and my colleagues and I will all remain vigilant on this.

Mr. UPTON. Commissioner LaFleur.

Ms. LAFLEUR. Thank you, Chairman.

I’ve received a number of classified briefings at the Department of Energy over the years. I actually have one scheduled tomorrow, and I appreciate Secretary Perry continuing to make them available.

In answer to your other question, hacks on the grid are constant. The National Center for Cybersecurity and Communications Integration—whatever NCCIC stands for—every year electric grid attacks are either a slight majority or slightly below 50 percent in the public numbers they put out every year.

Fortunately, in part because of the strong standards that I believe we put in place for the high voltage electric grid on perimeter security and password security and other things, they’re very infrequently successful with the electric grid.

In terms of what this committee has done, I think this committee had done an excellent job on the electric grid side. I used to participate, when I was chairman in some kind of committee that was across government of heads of the different agencies, and I think where there’s more we can do that’s across the different infrastructure sectors, among electricity, water, gas, finance, and others, that’s where there’s real, I think, weaknesses in sharing information and learning from each other because they’re looked at individually on the Hill and in government. But we all have a lot in common.

Mr. POWELSON. Mr. Chairman, let me also pick up on that.
The outreach that the FERC has done through our Office of Energy Infrastructure and Security, outreaching the State public utility commissions and helping State PUCs build their internal capacity to address cyber, I am very proud of the work of our Office of Energy Infrastructure and Security along with our Office of Electric Reliability.

State public utility commissions have used us as a resource to go through trainings and we’ve developed this checklist that PUCs can use with their regulating utilities to help in a management audit. It’s been a great collaborative. I will tell you it’s very difficult. When you asked about resources, we could certainly use more boots on the ground.

I am not here to get ahead of my chairman on that but I will make the request. The work getting out to 50 States and doing that kind of training requires a lot of boots on the ground. The good news is we are doing it in a collaborative approach with NARUC.

Commissioners have come into Washington for read-ins. These are all good things that are evolving. But to the earlier points, these threat vectors are changing every day and trying to break down the silo mentalities between the different Federal agencies I think we’ve come a long way in the last 8 years as a Nation to address these emerging threats.

Mr. Upton. Thank you. I know my time has expired so I will yield to Mr. Rush.

Mr. Rush. Mr. Chairman, Chairman McIntyre, back in January the commission voted unanimously to reject Secretary Perry’s notice of proposed rulemaking that sought to prop up coal and nuclear facilities.

Instead, the commission wanted grid operators to submit additional information regarding their ability to judge and I quote you, “naturally occurring and man-made threats,” to their system within 60 days.

Where does the agency currently stand on this issue? Does the commission believe that we are truly heading past the point of no return when the retirement of coal and nuclear facilities will leave us in a situation where we will soon be unable to meet our energy demands if we do not act quickly?

Does the agency support action by States and RTOs, the markets, or Congress? Or does the commission have the means and the authority to act on this issue if and when it becomes a problem?

Mr. McIntyre. Well, thank you for the question, Ranking Member Rush, and also thank you for acknowledging the steps that we as a commission have taken thus far.

As you note, our January order did raise the issue of the grid resilience and, specifically in terms of steps forward, we directed our nation’s operators of our regional grids—the regional transmission organizations and independent system operators—to take the first step in helping us to build our record on which we would base our decision making by submitting to us their own perspectives on resilience within their respective footprints. And that initial round of comment has come in from the original transmission organizations and independent system operators. Now we are in the subsequent commenting phase.
The questions you raised are among the very important issues that we will have to grapple with. Are there categories of resources or, indeed, even perhaps specific important resources that if they were to retire on a permanent basis simply go away and exit the scene of resources that are available to contribute to the energy that serves our nation's energy needs? Would that be something that would be harmful to American interests?

A very important issue and a tricky one. So that is very much within the scope of the matters that we will be looking at as we make our decisions, going forward.

Mr. RUSH. I would like to ask any of the other commissioners would you care to comment on my question?

Ms. LaFLEUR. Well, I think, broadly, the commission has two major sets of our responsibilities that really are directed to the resilience of the electric grid.

The first is the market rules to make sure that there's enough resources in the market, that there's enough of the type of resources that are needed to keep the lights on at any given time and that they're properly paid and the markets are stable so they'll continue to attract investment and resources.

Secondly, the commission has put in place a number of broad standards, both the reliability standards we oversee as well as some of the rules that Commissioner Chatterjee referred to, for example, on frequency response or voltage to make sure that if there is an essential reliability of services that's in demand because of all the changes on the grid, we have it for customers.

I think that Chairman McIntyre really covered very well the ongoing resilience proceeding. In terms of specific resources that are needed, all of the market operators have in place reliability must-run tariffs so if a resource wants to retire a test is done to make sure that its retirement will not put customer reliability at risk.

If there are changes needed in those tariffs we'll look at them. But I think that's a good place to start.

Mr. RUSH. Mr. Chatterjee.

Mr. CHATTERJEE. Thank you, Mr. Ranking Member.

I initially was sympathetic when Secretary Perry proposed the notice of proposed rulemaking to the commission. Being from Kentucky, having worked for Leader McConnell, I saw first-hand the devastating impact that coal plant shutdowns had on coal communities throughout Appalachia.

I also believe in climate change and man's role in it and believe that we need to mitigate emissions and I believe nuclear power will plan an essential role in that. And also am cognizant of the security concerns that Secretary Perry himself laid out before this committee last week.

That said, none of those issues were relevant to the docket that was before us, and I agree with all of my colleagues in voting to reject it because the record simply did not support compensating plants based on the availability of 90-day supply of fuel. That doesn't mean that Secretary Perry didn't ask the right question and I do believe the question of resilience that we are examining in this current docket is an essential one and I think over the course of time Secretary Perry will be proven right.
We are going to ultimately have resilience challenges in this country and we need to be prepared for that, and I think that this docket will allow for that.

Finally, I will say, to build on the point that Commissioner LaFleur made about existing tariffs for reliability must-runs, we've got to evaluate whether they work or not.

While Secretary Perry asked the right question, perhaps the NOPR was not the right solution. There may be other necessary solutions and we may in the coming days, weeks, months be confronted with situations where the existing tariffs do not allow for some of the accommodations that may be necessary.

I had pushed for a show-cause order that I included in my concurrence to the NOPR that I think, as we look back in time, may have been the right thing to do.

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

Mr. Upton. Thank you.

Mr. Barton.

Mr. Barton. Thank you, Mr. Chairman.

I am going to ask my questions directly to the chairman. But if any of the commissioners wish to add their comments they're very welcome to.

The first question, Mr. Chairman, is can you give the subcommittee a general idea of what the variances in retail cost of electricity in this country is by region from, say, the lowest region to the highest region?

Mr. McIntyre. Thank you for the question, Congressman.

No. I am afraid I don't actually have that information at hand. It does vary very much by region and that, in turn, is often a function of the fuel type that is generally consumed within that region.

Mr. Barton. Does anybody on the—you, sir, Mr. Powelson.

Mr. Powelson. This is not real time, Mr. Chairman, but——

Mr. Barton. I don't need down to the exact——

Mr. Powelson. OK. So let's start with probably the highest distribution rate in the country is at about 43 cents a kilowatt hour on the island of Hawaii.

When we go more inland to the lowest cost of energy, I think the Republic of Texas, through retail competition, customers are paying less for power today than they were prior to electric restructuring.

So Texas has low rates. The State of Florida, from my last anecdotal meeting with officials from their utility, a nine-cent kilowatt—per kilowatt hour all in price. That's transmission, distribution, and generation.

So you from Hawaii, we know, at 43 cents to your state, maybe Florida, at a low distribution of nine cents.

Mr. Barton. Well, let's exclude Hawaii, since they're 3,000 miles from the mainland. Is it fair to say in the lower 48 the price difference at retail—the highest would be three times the lowest? Is that a fair generalization?

I know I am close. The right answer would be to say yes, but if you disagree with me——

[Laughter.]

Mr. Powelson. I don't want to get ahead of my chairman so——

Mr. Barton. It's at least two to one and I think if you look at California and compare California to Oregon, it's going to be close
to three to one. Or if you compare Texas to New York, it’s going to be close to three to one.

Would you all agree with that?

Now, the reason I ask that question is because ultimately what the committee and the Congress and the president are responsible for is, for lack of a better term, retail electricity prices that the average citizen can pay.

We also want it to be reliable, and we’ve developed a mix of energy sources in this country. Some states have regulated markets. Some states have deregulated markets. Some states pretty much rely on coal. Some states have a—like Texas, we’ve got a mix of coal, natural gas, wind, and some nuclear power and a little solar power.

But our nuclear plants and our coal plants are in distress. And my second question is the distress primarily caused by market forces, natural gas prices being very low, or is it caused by regulatory constraints on the nuclear industry and the coal industry?

Mr. MINTYRE. Congressman, I will begin. Thank you for the question.

Certainly, the low prices of natural gas today that we experience in this country due in large measure to the revolution in natural gas production methods make for significant head winds for coal and nuclear because it’s very, very difficult for them to compete in our open and competitive wholesale markets against that cheap natural gas resource.

As to the regulatory role, hard to say. Certainly, nuclear compliance and everything associated with the prospect of building a new nuclear generating facility today makes for enormous costs that probably has an all but prohibitive effect at short-term competition with natural gas prices.

Mr. BARTON. My time is about to expire.

I asked the first question to bring to the attention of the commission and the committee that retail prices vary greatly in this country. The cost of generation of electricity varies, depending on the fuel source, and the regulatory burden, obviously, on nuclear is very high and you can argue that it’s also very high on coal plants.

If we look for solutions to keep our distressed nuclear plants and coal plants in service, we should first look at regulatory relief and only then look at market relief.

When you start, in my opinion, to mess with the market, which some of these proposals do, in the long run it hurts the consumer because you either have to subsidize that price, which drives the retail price up, and eventually you can’t sustain it.

So I respect my good friend at the Department of Energy, Governor Perry. But I don’t think his proposed solution—while it’s well meaning, I personally don’t think it would work in the long run.

I would encourage the commission, to the extent you can, to look on the regulatory relief side, before we begin to look at the market solutions.

And with that, Mr. Chairman, I yield back.

Mr. UPTON. Gentleman yields back.

Mr. Pallone.

Mr. PALLONE. Thank you, Mr. Chairman.
In my opening statement, I noted that I’ve long advocated for finding ways to introduce more distributed energy and energy storage into our electricity grid, and one of the reasons for that is that I see too many transmission projects needlessly rubber stamped in the name of reliability.

There are certainly other ways to address reliability than just gold-plating the transmission system. But perhaps when you’re a hammer everything looks like a nail.

So today, newer and bigger transmission lines aren’t always the answer to the question of reliability. Distributed energy resources, renewable and otherwise, along with efficiency and demand response should be equally large tools in the box and technology has dramatically transformed the possibilities for cost-effective generating and efficiently delivering electricity to homes, businesses, and manufacturing facilities from a variety of sources.

So I want to commend the commission for recognizing this with its recent order regarding storage. With storage and distributed generation, both fossil and renewable base, along with improving storage options, smart meters, micro grids, and other technologies have altered the possibilities for effectively and economically ensuring reliability, and these technologies have also called into the question the most basic tenets of rate making and have challenged the longstanding financial model for utilities.

Now, I want to talk about a local issue, 2 years ago, First Energy JCP&L determined that its Monmouth County—where I live—that its Monmouth County reliability project was necessary to retain reliability for the entire regional transmission grid and specifically for New Jersey, and they proposed a 10-mile transmission line that would run through the district I represent along New Jersey Transit’s north Jersey coastline.

Ever since JCP&L proposed this project, I’ve articulated concerns about whether constructing this Monmouth County reliability project is necessary to accomplish JCP&L’s stated reliability goals. Recently, this view was echoed by New Jersey Administrative Law Judge Gail Cookson, who ruled that JCP&L failed to demonstrate that the transmission line is necessary and noted that JCP&L has not seriously considered alternative corridors and ignored non-transmission solutions entirely.

In the past, building a new transmission line may have been the only way to increase reliability. However, now there clearly are other options available. Other options include distributed generation storage, various new grid technologies. They can not only increase reliability but also modernize the grid. So Judge Cookson’s decision which I will send to you, but I am going to probably get back to you further, if that’s OK, but her decision supports my long-held suspicion that often projects like this Monmouth County reliability project are more about the rate of return for shareholders than reliability for consumers.

So my question to all of you is—whoever wants to ask it—how can you change this dynamic to ensure that utilities look at more than just new transmission lines, that they look at non-transmission alternatives to ensure reliability?
And how can we change incentives so that these non-transmission alternatives are still financially attractive to utilities? Can anybody take a guess?

Sure.

Mr. Powelson. Congressman Pallone, your home State, working with your State BPU—and we are seeing it across other States like New York with their reinventing the energy vision in Ohio, their Power Four docket, is to address exactly your point, getting at these non-wire solutions that we are seeing now with greater customer engagement behind the meter. Your State is a leader in that because of the lessons learned in the post-Hurricane Sandy where a grid resiliency bank has been launched under the BPU’s leadership a lot of microgrid investment in your home State.

And these are all good outcomes. It goes back to my earlier point of this evolving grid. We are not building 1,200 megawatt cathedrals anymore. We are doing things behind the meter and, yes, in front of the meter—cleaner, more efficient.

Mr. Pallone. Can FERC play a role in this, though, because everybody says, oh, where’s the Federal Government——

Mr. Powelson. Well, to the wholesale piece, and this is just my quick observation, we are finding in certain jurisdictions where, one, there is a lack in the post-FERC Order 1000 world of not really seeing competitive transmission being built, and that’s a PJM problem.

The other thing is addressing cost caps associated with these projects. I have a concern when industrial customers come in to the commission as energy users telling us that they’re seeing a 400 percent increase in transmission costs as wholesale prices are dropping. That’s alarming. That tells me that the RTOs at the wholesale level of transmission planning are not doing a very good job with cost containment, and we are all paying for that as consumers.

So these are the things that I plan to work on with my colleagues, and I know Commission LaFleur wants to jump in on that.

Ms. LaFleur. Well, just adding to that, first of all, legally the transmission planning tariffs that First Energy and others live within require consideration of non-transmissional alternatives. That is what’s legally supposed to happen.

I think the problem is sometimes that it’s more difficult to see the company making money from some of the non-transmissional alternatives. That’s where things like our storage rule comes in to make sure that those things are fairly paid for; and also the work—I was in New Jersey on Friday at an all-day meeting on New Jersey’s energy future and the work that’s being done at the State level to make sure those technologies are rewarded so that everyone has an incentive to install them like the wonderful work you have done on solar already, where New Jersey’s a leader.

We’ve done a lot of work on the planning processes to make sure that a company can’t just go off and plan something. There has to be an open process.

We issued an order last month about supplemental transmission projects in PJM requiring more sunlight in the planning to make sure that all the alternatives were considered including by consumer reps and State representatives and others, and those are
some of the kind of detailed things we can do to make sure that
the process doesn't ineluctably force in a certain direction.

Mr. Pallone. Mr. Chairman, I don't know if we are out of time
but I would like to be able to get back further on this, with your
permission.

Mr. Upton. Yes, absolutely. Absolutely.

Mr. Pallone. All right. Thank you.

Mr. Upton. I know written questions and written answers.

Mr. Pallone. Yes.

Mr. Upton. Is that all right? Is that OK? Great. Thank you.

Mr. Pallone. Yes.

Mr. Upton. Mr. Olson.

Mr. Olson. I thank the chair and welcome to our friends at
FERC.

I want to discuss pipelines and the MLPs that many companies
use to finance getting steel in the ground. None of the things we
talked about today, whether it's gas turbines or exports of liquified
natural gas, can happen without pipelines.

And this is not the Ways and Means Committee, nor do I ever
want to be a tax litigator or a tax legislative person. But I've heard
from a number of Houston area companies that are worried by the
changes that FERC did of whether pipelines can recover their costs
under MLP structures.

Companies like Ambridge, who has merged with Spectra, said,
"They intend to ask for rehearing of this policy change at FERC."
Their argument is that FERC made this move without a long
enough time for debate and you all didn't take into account that
not all MLPs are created equal.

Chairman McIntyre, welcome. You talked about this ruling. Do
you think your approach was appropriate?

Mr. McIntyre. Yes, Congressman. Happy to address that.

The ruling you referenced was actually a series of steps we took
in response to a court of appeals case called SFPP and we had be-
fore us fairly clear direction from the court of appeals to address
the so-called double recovery issue of taxation.

We felt we had no choice but to take decisive action in a manner
that we read as being directed by the court. It doesn't surprise me
that a number of companies out there affected adversely mone-
tarily by that would have a quarrel with it and they're not bashful
in sharing their views with us on that, I assure you.

Mr. Olson. Their texts aren't bashful at all.

Mr. McIntyre. Perfectly legitimate. It is their right, under their
governing statutes, to seek rehearing where they are aggrieved by
an order of ours. And so we would look forward to processing those
in accordance with our law and procedures.

Mr. Olson. Thank you.

And Commissioner Chatterjee, putting your House thinking hat
on, any thoughts about this situation with the MLPs and the
changed law?

Mr. Chatterjee. Yes, sir. I agree substantively that the chair-
man is correct that our hands were tied by the courts.

Coming from the legislative branch, we focus a lot on process and
I think―look, I am new to the commission. Four of the five of us
are new to the commission. I am not afraid to say that we are all
still learning and progressing, and procedurally I do now recognize, in looking back, that perhaps there were some things that we could have done differently.

For instance, voting during the market day was perhaps unfortunate. I think we incorrectly assumed, once we posted our Sunshine Act notice, that that was enough of a sort of disclaimer that this was coming and that the markets would factor that in. Clearly, that was a misread. I am sympathetic to the argument that beyond an NOI process that took place a couple, in the past, maybe a technical conference, some more process could have been necessary.

And so I am always learning and trying to do my job better and will try and learn from this experience as well, going forward.

Mr. Olson. Thank you. That’s the man of the house.

My final question is you all know I am not shy about supporting LNG exports. In fact, I was in India 2 weeks ago. I left there being—they called me the congressman for LNG exports from America. I spoke to Secretary Perry last week about how important these exports are to Texas, our country, and our world.

Despite that, I’ve heard some concerns back home that you are slipping behind schedules of some very viable Gulf Coast LNG projects.

I’ve heard rumors that FERC had only six to eight employees targeted with approving these booming permits. I’ve heard you actually approached the DOE for new members to help out with the backlog of approving LNG permits.

To the whole panel or the chairman, is that true? How can we help you get these things rolling as quickly as possible?

Mr. McIntyre. Thank you for the question, Congressman.

We are paying very close attention to the pending applications, not only for LNG export infrastructure but also for natural gas pipeline infrastructure. It’s consuming an enormous amount of attention and manpower within the agency. We are looking to beef up the ranks of our Office of Energy Projects and we are actively pursuing hiring in that regard right now. But if there’s any suggestion that we are somehow not giving it our full effort right now, I can assure you that that is not the case at all. It’s consuming a huge amount of attention and effort in Energy right now.

Mr. Olson. Thank you.

Mr. Powelson, a quick question. Can you say you all?

Mr. Powelson. You all.

Mr. Olson. Very good. Welcome to Texas.

Mr. Upton. The gentleman’s time has expired.

The gentleman from California, Mr. McNerney.

Mr. McNerney. I thank the chair and I thank the commission, and your opening statements were interesting and useful. It’s good to see a body working together like this and I appreciate that.

Last year, we narrowly dodged the bullet at the Oroville Dam when a section of the emergency spillway collapsed. Evacuation of over 100,000 people was ordered and there was considerable damage to the dam, associated structures, the river, and many downstream communities.

In January of this year, a FERC-required independent forensic team issued their report on the Oroville incident and the report is not flattering at all to the agencies responsible for the dam safety.
So I will read you a summary of the report. Although the practice of dam safety has certainly improved since the 1970s, the fact that this incident happened to the owner of the tallest dam in the United States under regulation of a Federal agency with repeated evaluation by reputed outside consultants in a State with leading dam safety regulatory program is a wake-up call for everyone involved in dam safety. Challenging current assumptions on what constitutes best practice in our industry is overdue. So that's the quotation from the report.

So this calls into question the adequacy of the FERC Part 12(d) regulatory for ensuring comprehensive reviews of dam designs and construction.

Mr. Chairman, is the commission planning to revise Part 12(d) regulations to improve the inspection process?

Mr. McIntyre. Thank you for the question, Congressman. We don't have a specific plan to address the 12(d) regulation process right now. I certainly acknowledge the importance of the issues you raise and, in fact, it wasn't only the emergency spillway but, indeed, the main spillway that was very much called into question—the integrity of that.

Our office of energy projects is working, literally, daily hand in hand with the appropriate California authorities to ensure that the remediation process is completed in an appropriate fashion so there's complete safety all around.

And my understanding, based on conversations as recently as yesterday, is that that is from our perspective going very well and that all involved on the Oroville end are doing their job very well.

Mr. McNerney. OK. Is the commission reconsidering its policies with respect to the ways in which information is submitted by participants to the license process that specifically deal with questions of safety? Will that be evaluated?

Mr. McIntyre. Yes. I can tell you that that will be a matter of internal deliberation and whether that proceeds to any formal commission action is something that I can't say right now.

I do know my colleague, Commissioner LaFleur, may want to chime in here.

Ms. LaFleur. Well, I was at the—commission and chairman—when Oroville happened and spent some time out at the dam and it was really an extraordinary event. We were very fortunate not to have had loss of life when the spillway ruptured.

We really have been responding on three levels and the first is the actual facility itself, closely working with the Division of Water Resources and the California agencies. We've had people on site ever since that happened, 24/7, for several months to make sure they do what they need to do over a 2-year period to correct that and, of course, the relicensing is pending as well, which we can't talk about, but that these issues are being brought in there.

Secondly, looking at other spillways of common construction in California, there were several and elsewhere to make sure they're all closely inspected and we directly learned the lessons of the forensics panel that you mentioned.

And third is our own safety program, and in addition to the forensics panel that you mentioned, we also set up a team of outside people to look at how we do our inspections and we are wait-
ing for their report and we’ll be taking action, just as you sug-
gested.

Mr. McNerney. OK.

To change gears a little bit here, we are experiencing more ex-
treme weather events. What steps is FERC taking to ensure the re-
siliency of the grid?

Again, Mr. Chairman.

Mr. McIntyre. Well, we are in the process of doing the comment
intake I referenced earlier on our grid resilience proceeding.

The recent extreme weather events have been instructive in this
regard and it’s varied by region. But, certainly, just to pick a re-
gion, in New England it’s particularly challenging—this bomb cy-
cclone event over the passage of last year into this year where in-
creasing amounts of oil-generating resources, oil-fired generating
resources were needed to be called upon in order to ensure the elec-
tricity needs of that region, triggering, of course, not only environ-
mental concerns but significant cost increases.

So these weather events are directly tied to our statutory obliga-
tion to ensure that the rates are just and reasonable and also di-
rectly tied to our need to ensure reliability of our bulk power sys-
tem.

Mr. McNerney. Thank you.

Mr. Chairman, I yield back.

Mr. Upton. Gentleman from Illinois, Mr. Shimkus.

Mr. Shimkus. Thank you, Mr. Chairman.

It’s great to see you all here today. Thank you for coming, and
you have got a big portfolio of things that you deal with. I am going
to stay on the electricity side.

But I just want to mention that New England, the Northeast,
needs more natural gas pipelines. Especially with home heating oil
and stuff like that, that’s why you’re in power to help resolve the
difficulties of crossing state lines and siting and that stuff because
it just needs to happen. Obviously part of your mission statement
is regulates the transmission and wholesale sales of electricity and
interstate commerce.

So the first one is, hopefully to you all, is with the States inter-
vening to some extent in wholesale market support generation, how
are you handling that? That kind of addresses a couple things—re-
liability possibly. If you’re trying to ensure low-cost reasonable
prices in the wholesale sector, the two issues kind of conflict, do
they not? And elatively quickly, because I want to go down on a
couple other questions.

Mr. McIntyre. Well, you have gone directly to one of the
trickiest areas that we deal with, Congressman. The States have
their valid role in making policy choices as to energy resources that
are preferred by the State and they reflect that through their legal
decision making. We have an obligation at the FERC level to en-
sure that the electricity generated by those resources that makes
its way onto our grid is sold at rates that are just and reasonable.

The costs behind that generation are affected by the resource pol-
icy choices. So we have to be respectful of the states’ roles while
ensuring that we do our Federal role right of ensuring just and rea-
sonable rates.
Mr. SHIMKUS. So does everyone, quickly, agree with that analysis?
Mr. GLICK. Mr. Shimkus, if I could just butt in here for a second.
I think that it’s true that we actually have to do a balancing. But
the Federal Power Act gave the States the authority over resource
decision making, not—the generation resource decision making, not
the FERC.
And so I think it’s up to the commission within our responsibil-
ities to ensure that wholesale rates are just and reasonable, and
also that the markets are reliable to accommodate those State poli-
cies, not to override those state policies, and I think that’s an im-
portant objective for us.
Mr. SHIMKUS. Go ahead. Chime in.
Mr. CHATTERJEE. I support States’ rights.
Mr. SHIMKUS. I testified to that, I think.

[Laughter.]
Mr. POWELSON. I come from a market state, now recognizing
those regional differences in these markets, as Commissioner La-
Fleur mentioned. Some markets have capacity. Some are energy
only.
But I am having an epiphany now as a new FERC commissioner.
States are, clearly, to my colleagues’ point, allowed to design things
like renewable portfolio standards.
But what’s happening, Congressman, is we are bastardizing
these markets in such a way where the States are picking winners
and losers. They’re allowed to do that. But now it’s coming at the
consequences of the capacity market construct. And let me just say,
Secretary Perry was right. These constructs are bastardizing these
markets and the availability of generators to receive adequate com-
pensation for that resource.
And so I might be Debbie Downer here in my approach, but it
is a concern that we have to be cognizant of to the point of giving
States flexibility I will say within reason of Federal Power Act.
Mr. SHIMKUS. OK. Let me throw another one and I—sorry to not
go to Commissioner LaFleur, but RTOs and ISOs are struggling to
find consensus to drive the needed investments that we say they
all need. What can you all do about that?
I’ve been on this committee for a long time. So I understand
when we had regulated markets and we went to competition and
now we are schizophrenic—some regulated, some competition—
transmission going across state lines.
I think we need to continue for reliability is to make sure that
we have needed pathways. But we are being told we can’t fund
them.
Do you have a role? Is there something you can do to help in the
process of the build out?
Mr. McINTYRE. In terms of transmission?
Mr. SHIMKUS. Yes.
Mr. McINTYRE. Yes. Well, Commissioner LaFleur mentioned the
importance of attention to our transmission planning processes.
I think that’s something that is ripe for evaluation as to whether
it’s working as well as it should, as well as was hoped for when
we issued our landmark Order 1000.
I think it's a valid question that does indeed cry out for attention.

Mr. SHIMKUS. OK. If anyone wants to jump in.

My time has expired, but go ahead.

Mr. GLICK. I would just add quickly, as you know, as you worked on this in 2005 Energy Policy Act, it added a provision that provided incentives or allowed FERC to provide incentives for transmission.

And I think it's a good time maybe now to revisit that policy and are we really incentivizing what we need to do—are we incentivizing the right investments and are we incentivizing the actual investments that are needed?

And so that's what I would look at first is the incentives for transmission.

Mr. SHIMKUS. Yes. My time has expired. I would just say if we ever move on infrastructure, expansion of the transmission grid might be a good thing to put an infrastructure package to.

I yield back. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman, and since our commissioner talked about the Republic of Texas, being a Texan and I have the Houston area, and if you look at your maps on pipelines you don't see anything. It might be white in outer parts of the country but in my area in southeast Texas, pipelines are the way we move product, and crude oil will come in or natural gas to come in to make chemicals out of it.

Texas was an independent nation for 10 years and some of us still think we should be. But we lost that battle in 1865, too. But we got a pretty good deal in Texas. The Federal Government in 1845 paid off our $10 million of State debt and we got to keep our State lands. And so that's why some of our Western States friends have problems. But we kept those lands and the Federal Government didn't get them.

But we are in the middle of a revolution almost, I guess, in generation, and our subcommittee has held a number of hearings about looking at how other markets do. And one of the things I want to say is that Texas, a decade ago, produced 492,000 megawatts of wind power. This last year, Texas produced 58 million megawatts of hours a year. And so we are benefiting from the wind power. In fact, there are certain days that wind power actually is producing more electricity than coal in Texas. Of course, we also benefit from the regional price of natural gas. It's in our backyard.

One of my concerns, and we've heard the talk of resiliency, and I disagree with Secretary Perry, even though I served in the legislature with him many years ago, and Texas went the route we have when he was governor for so many years. But many supporters of the proposed subsidies have said that we are on the brink of resiliency crisis.

Chairman McIntyre, can you elaborate on the commission’s views about the state of resiliency in the grid and do we face an immediate crisis due to future closing of coal and nuclear plants?
Mr. McIntyre. Resilience is now a matter of declared priority for the FERC, and we are proceeding in that fashion. We are assembling the record that I referenced earlier.

We've heard already from our nation's operators of regional transmission organizations and independent system operators—their perspectives and we are awaiting further input from stakeholders on it.

It's a critical issue, and there are different ways of looking at it. One is operational in terms of is there equipment or are there facilities that would be needed to help shore up the resilience of the grid. The other is economic and, in effect, a need to ensure that our markets are properly compensating the resources that we regard as important to ensure resilience of our grid.

So we are looking very hard at those issues now. We'll continue to examine the materials submitted to us in the record and in the hope of getting this right.

Mr. Green. And you're looking at alternatives too, because I know the same problem—we get about 20 percent of our electricity in Texas from nuclear power. We couldn't expand it because the investment is not available now.

And so there are other ways and, of course, from Texas, as my colleague from Fort Bend County would say, we'd be glad to put another pipeline up to the Northeast to send them some more natural gas or export it around the coast for them.

My colleague, Pete Olson, mentioned—my next question is on the concern about United Airlines Inc. versus FERC, and I apologize—I haven't read that case.

But I always view that mastered limited partnerships, it's been so successful in capitalizing pipelines, particularly, it's almost like a Chapter S corporation.

You pass through that so it's not corporate double taxation, and if we cannot use that as an investment instrument I don't know how we are going to continue the expansion of growth—that I think FERC recognizes we need more pipelines to get product to the market so we won't have a resiliency problem.

Mr. Chairman, I realize FERC's public policy as precipitated by the D.C. Circuit Court's opinion, I would like to know if FERC has conducted its own analysis of whether or not double recovery existed before the decision.

Has FERC thought there was a problem at the policy prior to the United case.

Mr. McIntyre. That's a matter that was in effect handed to us by the court so we had no choice really as a regulatory agency but to take it at face value and to act upon it.

We had no independent analysis of the double recovery issue as is customary under the statutes that govern our actions. We act in accordance with the arguments that are put forward for us by the litigants, in most instances, and this was such a situation.

Mr. Green. I thought the court directed the FERC to consider how it could demonstrate there was no double recovery. Is FERC looking at that particular issue to be able to answer whatever the circuit court said?

Mr. McIntyre. Well, here too, back to legal processes, I suspect that we will have no choice but to look closely at that issue in light
of further procedural steps that the parties will have a right to in-
voice, such as request for rehearing.
Mr. GREEN. OK. Mr. Chairman, thank you, and I know the juris-
diction of that typically is in Ways and Means. But since it deals
with FERC we have some jurisdiction in our own committee.
So we might look at that to make sure we don’t eliminate this
ability for investment in the pipelines that the whole country
needs, and I will yield back my time.
Thank you.
Mr. UPTON. Thank you.
Mr. LATTA. Mr. Chairman, thank you very much, Mr. Chairman, and thanks to
the commissioners for being with us today. Really appreciate it and
hearing your views.
Commissioner Powelson, if I could start my questions with you.
As you point out in your testimony, under the Energy Policy Act
of 2005, FERC was given the authority to oversee the reliability of
the bulk power system.
This included the authority to improve mandatory cybersecurity
reliability standards and during the first half of 2018 we have seen
new stories about hackers working to undermine the safety and se-
curity of our nation’s energy infrastructure including cyberattacks
launched by Russian agents against the power grid energy, nu-
clear, and commercial facilities and critical manufacturing sectors.
Would you go into more detail about what FERC is doing to ad-
dress these attacks and how will you work with the North Amer-
ican Electric Reliability Corporation to reassess and, if necessary,
revise the reliability standards?
Mr. POWELSON. Thank you, Congressman, for your question.
First and foremost, these reliability standards, which apply to
users, owners, and operators of the bulk power system, were devel-
oped, as you mentioned, by NERC, and I think we continue to col-
laborate with other Federal agencies in those compliance measures.
You also have on top of that the critical infrastructure protocols,
or CIP standards, and I mentioned earlier in my testimony the col-
laborative effort with NERC and working with the ISACs and the
collaborative effort around the utilities, the gas industry, and the
other impacted entities, working in collaboration together.
Some of these reporting requirements are a little onerous. I
would refrain from saying that because, again, we can’t really cut
corners on cybersecurity.
We’ve got to give you all peace of mind that we are protecting
and applying the needed resources to protect the bulk power sys-
tem. And as I mentioned earlier, these threat vectors are changing
radically, daily, and it’s important that we continue to work with
the other agents. That’s why I gave a nice shout out this morning
to Secretary Perry and the leadership that DOE has shown on this
issue with the launching of their new Office of Cybersecurity.
Mr. LATTA. And we appreciate it. When the secretary was here
when he gave his testimony, let me just follow up, because to ad-
dress the threat of cyberattacks to our energy grid, I am working
with my colleague, Representative McNerney, introducing two bi-
partisan pieces of legislation.
These bills, H.R. 5239, the Cyber Sense Act, and H.R. 5240, the Enhancing Grid Security Through Public-Private Partnership Act, was the subject of a legislative hearing in the subcommittee last month. Under H.R. 5239, the secretary of energy would be directed to establish a voluntary cyber sense program to test cyber secure products intended for use in the bulk power system. The secretary would then maintain a database on these products and the technologies and provide technical advice to energy stakeholders to develop solutions to mitigate identified Cybersecurity vulnerabilities.

You mentioned in your testimony that FERC has worked closely with DOE to maintain an awareness of emerging cyber threats. Do you think this policy would help improve the safety and security of our energy infrastructure and would help address these threats?

Mr. POWELSON. Congressman, I think it is a wonderful effort that any type of legislative construct that recognizes, one, collaboration in the cyberspace; two, adequate capacity building even in—
even at the State level.

So I can just at first glance tell you I would be very supportive of a bipartisan bill to give those resources to DOE.

Working with the FERC, as Chairman McIntyre mentioned, we do have a strong collaborative effort in place with TSA, FMSA, DOT, Homeland Security, and I think this is another example of how we can build on those capacities.

Mr. LATTA. Thank you.

Chairman McIntyre, I've long believed in an all of the above energy policy. Our nation has vast energy resources that need to be utilized and we should be doing everything we can to make sure that our energy industries grow.

By doing this, we can make sure that we are truly energy independent. Mr. Chairman, do you believe that it is of vital importance to our national security that we continue to maintain a diverse portfolio of energy sources for electricity generation?

Mr. MCINTYRE. Very much so, Congressman.

I, too, express my view in the same terms. All of the above is the appropriate approach to how we should satisfy our electricity needs as a Nation.

All different types of electrical generating resources and other resources indeed—storage, distributed energy resources, and the like. Where this will be tested is in the very tricky area that a number of us have addressed here today—the interplay between State resource choices and our Federal role of ensuring that our markets operate properly.

If we really do mean that we are committed to an all of the above resource policy, can we be content to see a category resources go away and exit the scene?

Very, very tricky public policy question that we are grappling with as we proceed with our grid resilience work.

Mr. LATTA. Well, thank you very much.

Mr. Chairman, my time is expired and I yield back.

Mr. UPTON. Mr. Doyle.

Mr. DOYLE. Thank you, Mr. Chairman.

Good morning and thank you all for appearing before us today. Many of us are running between two hearings simultaneously. So I apologize that I wasn’t here to hear your testimony.
Commissioner Powelson, as a fellow Pennsylvanian, I am going to pick on you first. At your confirmation hearing last year you said, what I learned from my experience in NARUC is that what works in Pennsylvania might not work in other jurisdictions, and you highlighted the proud appreciation that we all have for individual States’ rights in supporting our State energy policies.

However, I also read that you may have some reservations explaining that State interventions come with consequences to reliability and I can’t argue with Secretary Perry’s point that these markets aren’t pure but the policies all sound good and I respect that. But the reality is the policies aren’t synchronizing with the system and therein lies a significant challenge. Your testimony highlights an inherent tension—the oversight role of FERC with the independence of the States. And I know my good friend, Representative Shimkus, asked for some additional clarification here. But I wasn’t present for that.

So I understand you said you felt the commission should respect States’ rights within reason. Do you think FERC oversight or potential intervention will or should be applied on a case by case basis? Do you think that Congress ought to provide additional clarity here also?

Mr. Powelson, Congressman Doyle, I will start—well, I think the FERC is well equipped, if you look at some cases that we’ve had over the last decade—Talen Energy v. Hughes in Maryland, Talen Energy v. Solomon in New Jersey—recent constructs of addressing in the post-Polar Vortex, we had an issue in PJM with a 24 percent forced outage rate. We dealt with capacity performance.

So I think the markets and the work that the FERC does, we have the tools to address these issues. When you say case by case basis, if I look over those cases where we had to send a loud and clear message to the State of New Jersey and the State of Maryland on capacity resources being subsidized in the market and, by the way, it would have had with generation in Pennsylvania, the FERC, in terms of a rule of law, did its job and the court recognized that.

I have said it earlier, I am very proud of my Pennsylvania experience. Pennsylvania has a very successful renewable portfolio standard led under Governor Rendell and former DEP Secretary Katie McGinty.

Let me give you, as a former state senator, what happened. In that construct, the State picked really 13 categories of what qualifies for a renewable portfolio standard.

Well, guess what? Back then I remember there were pushes to get nuclear as part of that RPS. It was outright rejected. So here we are today is we are having conversations. That state construct in Pennsylvania, as an example, did not recognize the value of nuclear power. And if the State wants to go down that path, we are seeing it more recently this past week in New Jersey, they’re more than willing to do so.

My drawing the line in the sand is how it impacts the wholesale power markets. And once we surrender that flag, we are out of business. We’ve got to protect the sanctity of those organized markets.
So I recognize that as a Pennsylvanian but I also recognize in my new role that oversight of those highly functioning well organized markets.

Mr. Doyle. And many Pennsylvanians, including myself, are strong supporters of nuclear power. It both satisfies reliability issues and it's also carbon free, and I think there should be alarm bells going off across the country as we see how many of these plants may not go through relicensing and they're going to be replaced mostly for baseload capacity with—whether it's natural gas or something else that emits greenhouse gases and it makes it almost impossible for us to meet our climate change goals.

Commissioner LaFleur, I want to quote from your statement regarding the NOPR because I think it's exceptional in describing the current situation we face: “The commission should continue to focus on its efforts not on slowing transition from the past but on easing the transition to the future. We must continue to guide grid operators in sustaining reliability and resilience within a system that is likely to be cleaner, more dynamic and, in some instances, more distributed, and deployed by an efficient market for the benefit of customers.”

I am amazed by the technological developments we've witnessed in the energy sector. The pace has gone from a walk to a jog to a sprint. And looking into the next decade or two decades from now, how do you think the regulatory bodies or agencies need to change to better reflect and adapt to these changes and what can we do here at our committee to facilitate those changes?

Ms. LaFleur. Well, thank you for the question and for the compliment.

I think one of the points of stress in the future is going to be the line between Federal and State, not because of any overweening ambition on the part of this commission or the Federal Government but because we are seeing more distributed resources, even behind the customer meter, collectively behaving just like a central station resource. And sometimes even more resilient because of the ability to modularize them if there's any kind of a weather event or an attack.

So I think that we—as has been mentioned, we had a 2-day tech conference last week. But I think figuring out how we best deploy those resources for the future is where the public policy people, like everyone in this room have to be working now because the technology is coming so quickly.

Mr. Doyle. Thank you.

Mr. Chairman, thank you very much.

Mr. Upton. Mr. Harper.

Mr. Harper. Thank you, Mr. Chairman.

Thanks to each of you for being here and for the dedicated job that you're doing on important issues.

Maybe as a follow up to Mr. Doyle's questions, Mr. Chairman, if I could ask you, traditionally the regulation of DERs had been the jurisdiction of States and localities.

However, with the issuance of Order No. 841 and its proposal for the aggregation of DERs for the purpose of participating in wholesale electricity markets, FERC could expand its authority at the expense of States and localities.
So my question would be how will you deal with any jurisdictional challenges that may come about?

Mr. McIntyre. Thank you for the question, Congressman.

There are a couple of different things going on here. One is electricity storage resources and then, separately from that, distributed energy generating resources.

As to each category, honestly, I am not particularly troubled by any sort of jurisdictional creep because that power would make its way onto our grid in a way that we could regulate it only after it had been aggregated and put forth to a market that we regulated—a wholesale electricity market.

And there certainly is no attempt on the part of this commission to in any way thwart the ability of the State, for example, to determine in a retail level transaction what the owner of the generating resource would be—what level that owner would be compensated.

And so, honestly, I don’t see that as being a particularly great concern.

Mr. Harper. Well, thank you for that answer.

And Mr. Chairman, if I may ask you, you know, certainly, as you know, we talk about energy infrastructure. It’s a very capital intensive venture, and Wall Street investors require a very high degree of regulatory certainty and sound rate making policies before committing capital.

Does FERC currently have a methodology in place to set transmission ROEs?

Mr. McIntyre. Yes, we do, sir, longstanding.

Mr. Harper. OK. Longstanding. And how many complaints are currently pending regarding transmission ROEs?

Mr. McIntyre. We have a number of them pending.

Mr. Harper. A ballpark. You said a number.

Mr. McIntyre. A dozen or so.

Mr. Harper. OK. So what is the timetable for resolving those complaints that you just mentioned?

Mr. McIntyre. Those matters are actively being worked upon within our agency right now. They are not subject to a specific timetable. They are something we are paying attention to.

Our most important job, obviously, is to get it right.

Mr. Harper. Obviously, and we want you to do that. That’s good.

Under EPACT 2005, FERC developed a policy, and that’s in Order 679, I believe, which provides for incentive rate treatment to encourage the development of transmission line infrastructure.

While this policy had been in effect since 2006, can you elaborate on the status of this incentive policy now?

Mr. McIntyre. It’s something that Commissioner Glick mentioned in his view as something that probably is ripe for some fresh attention.

In a general sense, I would agree with that.

Mr. Harper. Commissioner Glick, do you care to comment?

Mr. Glick. Thanks, Mr. Harper.

You were exactly right. So in 2005 Congress did provide FERC the authority to provide incentive rate making and the commission did have an incentive rate making policy and there was a belief that the commission was going too far in providing incentives for too many activities.
So the commission subsequently issued a new policy statement that somewhat retransformed that particular policy and I think that the criticism may be that the commission may have gone too far in the other direction. I think that we need to take a fresh look at the policies or are we incentivizing the right things. For instance, we incentivize RTO participation but a lot of people already—utilities are participating in RTOs regardless of whether they have an incentive or not. But we really should be incentivizing are we using new technologies to make transmission capacity more efficient.

Those are the type of things that I think Congress gave us the authority to do and I think it’s a good idea to take a look at it.

Mr. HARPER. Are we still seeing our transmission developers filing applications for incentive rates? Is that still happening?

Mr. GLICK. Absolutely. We do often.

Mr. HARPER. OK. And do you believe it’s at the appropriate rate and amount?

Mr. GLICK. I think we have to take that on a case by case basis. I actually dissented from one of those particular cases. But for the most part, I think the commission has approved those incentive rates.

Mr. HARPER. Thank you, Commissioner Glick.

And with that, I yield back, Mr. Chairman.

Mr. UPTON. The chair recognizes the lady from Florida, Ms. Castor.

Ms. CASTOR. Thank you, Chairman Upton, and welcome to our FERC commissioners, thank you for being here today.

In the hearing last week on the Department of Energy budget with Secretary Perry, I asked him about research and development investments in energy storage because energy storage is so crucial to increasing America’s renewable energy sources, incorporating them, and modernizing the electric grid. And even though the budget doesn’t really match what we’d like to do, I think the Congress will come back and say we are committed to doing this just like we did in the omnibus bill. In fact, I noticed the Department of Energy just this morning issued a big press release on solar technology and investments.

So but I have to say I was heartened by FERC’s recently issued order, a 5 to 0 vote to remove market barriers for energy storage to participate in wholesale markets in the bulk power grid, because allowing energy storage should compete with fossil fuels like gas and coal will enhance competition.

It will help us develop more clean energy resource and hopefully keep electric rates affordable for the average American. And experts say that the number one issue in clean innovative technologies is being able to integrate renewable energy with the large bulk transmission grid.

So I commend you on your recent efforts to accommodate the growing clean renewable energy sources. However, the commission declined to also eliminate barriers for distributed energy resources, something that we were just talking about, which would help further integrate renewable sources into the electric grid.
I saw in one press report it said that the commission was disappointed that you could not issue an order similar to your storage decision for distributed energy resources.

So Mr. Glick, why did the commission not remove market barriers for distributed energy sources, like it did for energy storage, and what’s the next step?

Mr. Glick. Thank you for your question, Ms. Castor, and I agree with you, I think the technologies origin and distributed energy resources are the wave of the future and are going to provide significant amounts of benefits.

There’s still some questions that were left during the rulemaking process about reliability and how we interact with the States in terms of the distributed resource aggregation. So we actually had a technical conference last week. We had a 2-day conference, seven panels. I think we had enough information, in my opinion, to address the issue.

The commission has a statutory responsibility to make sure that there’s no undue discrimination again as any particular technologies and I think this is a good example where I think we are required to address this matter.

Ms. CASTOR. So what are the next steps? You have the technical conference. Mr. McIntyre, what’s next on your agenda on this?

Mr. McIntyre. We did, indeed, have the technical conference. It was a 2-day technical conference. A lot of very, very good input from stakeholders of various roles within the industry and I agree with Commissioner Glick that the record that we are assembling through that process will enable us to take steps comparable, I would suggest, to the steps that you noted with regard to storage.

I am not intending to forecast a particular outcome. I am just saying that we’ve got enough now to go on the make a determination about what the appropriate steps forward are.

Ms. CASTOR. So would stakeholders still have the ability to weigh in with FERC?

Mr. Glick. Yes, ma’am.

Ms. CASTOR. OK.

Ms. LaFleur, where do you think this is going? What advice would you give to stakeholders and folks in the public who are interested in weighing in?

Ms. LaFleur. Well, the advice I always give is to be as specific as possible to help us and that’s true even more so in this docket because of the real complexity of what we are looking at.

There are only two macro issues. The first is the money issues, where you have these deployed distributed storage resources that can be paid at the State level. They can be used by the customer or they can be paid at the wholesale level.

Who pays what to whom, how do we figure out we don’t have double counting and so forth—I think that’ll require some very specific rules. But the more suggestions we get, the better.

The second is the operating issues of how the different control centers talk to each other. We’ve got some great testimony on that. I think one of the big issues we are going to have to think about as a body now is how uniform we make the rules as we put them out versus allowing regional variation.
We heard a lot from some of the people who testified about wanting different regions to go in different directions here. I am somewhat of the belief that the technology is marching so quickly that we should try to figure out what best practices are now. But that’s what we’ll be debating and I think we’d like input on that.

Ms. CASTOR. Well, thank you very much. I think it is an exciting time for the development of clean energy technology and I commend you on your interest in pushing this forward. Thank you very much.

Mr. UPTON. Mr. McKinley.

Mr. MCKINLEY. Thank you, Mr. Chairman.

Over the past 8 years on this committee, we’ve heard a lot of comments in hearings about the—our aging coal and nuclear fleet—that it’s out there, and unfortunately, in many regards, it’s very expensive to upgrade those facilities and, in so doing, when they do make those upgrades, sometimes they lose their competitiveness and it puts them in a dilemma.

Now, what we are talking about now is, again, we have across this country 531 coal-fired power plants shuttered in the last 10 years. We’ve had 11 nuclear power plants closed down during that period of time, and we keep having hearings but I want to move from the abstract to something concrete.

I’ve got a power plant in Pleasants County, West Virginia. It’s a 1,300 megawatt—1.3 gigawatts of power. They tried to sell that plant back in—because it’s a merchant plant—they tried to move it over to the regulated and they were denied. So as a result, the operator now is seriously considering—and I believe it’ll happen before the end of the year—declaring bankruptcy and shutting that plant down.

Just follow the ramifications of that. This is a small county. Thirty percent of the tax revenue comes from that power plant—30 percent. So 30 percent, that’s an overnight reduction that’s going to affect their school system. What about their EMS? What about their hospital? All of the things that the country provides services are now a 30 percent reduction as a result of this.

It goes further. We can further this domino effect. If this power plant closes down, there’s a very high likelihood the coal producer that supplies that power plant will similar declare bankruptcy. If he declares bankruptcy, his relief will be to get away from his pension, is UMWA pension responsibility, which currently now funds 120,000 retirees.

Now, the object would be, if that’s reduced, they would be shifted over likely to the Federal pension guarantee fund. But I’ve got a letter from the pension guarantee fund that says don’t put those 120,000 on us because then we’ll go under.

So you see the domino effect of this. A mere request—somehow provide some assistance so they could be an existing power plant and have been—have been rebuffed.

Just wouldn’t it be more efficient and prudent to try to find a vehicle—a means, whether it’s a 403, whether it’s a 202(c)—some modification of that so we can keep some of our marginal power plants operative?

So, Mr. Chairman, if I could ask you, when FERC denied the 403, did anyone come up with what the cost to the consumer could
have been if 403 had been imposed on, let’s say, in Pleasants Coun-
ty power plant?

Does anyone have an idea what the costs could be just to keep it operating?

I guess the answer is none of you know.

Mr. MCINTYRE. I am sorry, Congressman.

You refer to the costs of the Secretary of Energy’s fourth NOPR
directed to us?

Mr. MCKINLEY. Just what would it cost to keep that power plant
operating. Are you talking about $50 a year per customer?

Mr. MCINTYRE. I do not have that figure.

Mr. MCKINLEY. Could you get that to me? Because we have rea-
son to believe it’s less than $50 a year per customer and the con-
sumer currently is paying $50 a year for tree trimming.

That’s hundreds of jobs that could be lost—the pensions that
could be lost for our miners and our steelworkers, all that would
be affected with this.

I think we have a moral responsibility to look at this thing holis-
tically rather than just an ideological fight against what we think
is a free market and I think too many of you have said both pub-
licly and privately that we really-are questioning whether we have
a free market system in energy.

Let me just ask you, do we have a free market system in energy?

Mr. MCINTYRE. We do not have a perfect market system in en-
ergy, that is certain.

Mr. MCKINLEY. OK. Because I think, Mr. Powelson, you said in
Pennsylvania that without the subsidy for wind and solar there
wouldn’t have been any build up there. Is that correct?

Mr. POWELSON. I put it in the context of the renewable portfolio
standard, how it was designed.

Mr. MCKINLEY. OK.

Mr. POWELSON. We also, though, in our RPS I believe we have
a requirement set aside for waste coal in that RPS.

So yes, to the chairman’s point and to Secretary Perry’s point,
these are not pure markets. There’s been——

Mr. MCKINLEY. Thank you. I don’t think they are either. So I
will just close with again, I am asking look seriously at the bigger
picture—what we are going to do to communities like Pleasants
County. A 30 percent overnight loss of tax revenue—how are they
supposed to meet their education demands, their health care
needs?

Thank you. I yield back.

Mr. MCINTYRE. Thank you, Congressman.

Mr. UPTON. Mr. Tonko.

Mr. TONKO. Thank you, Mr. Chair, and thank you, Chair McIn-
tyre and all of our commissioners for appearing here this morning.

Last month, I held a round table with a variety of stakeholders
interested in storage, and everyone agreed that Order 841 was a
necessary step forward to lower barriers for storage’s participation
in the markets.

Chairman McIntyre or Commissioner Glick, do you believe that
reducing barriers and enabling greater storage deployment will be
beneficial to grid reliability and resilience?

Mr. MCINTYRE. I will jump in first.
I think every avenue for reliable energy that can make its way to our grid can only help resilience and reliability, hence my expression earlier of my support for an all of the above approach to satisfying our nation’s energy needs.

Mr. Tonko. Thank you, and Commissioner Glick.

Mr. Glick. Thank you, Mr. Tonko.

I agree. There are numerous benefits with access in distributive resources and aggregating distributed resources.

I would point out that, too, would be one, increased competition in the market will certainly lower wholesale electric prices, but secondly, I think it gives RTO and ISO operators more input, more understanding of what’s going on behind the meter, which is certainly, I think, an increasing concern with regard to the reliability of the grid.

Adding aggregation to the mix would actually increase and enhance reliability on resilience.

Mr. Tonko. Thank you. That’s good to hear, because I believe it has a number of significant benefits—reduction of peak demands, integration of variable renewable energy, frequency of regulation, and congestion relief.

So it’s encouraging. As this order moves forward, I hope you will continue to seek to reduce barriers for emerging technologies and work to resolve issues from the distributed energy resources technical conference.

But I also want to address another recent issue that was considered by the commission. The relationship between FERC electricity markets and State policies is not a simple one. But, certainly, States have a significant role in determining their generation mix.

I want to ask about ISO New England’s competition auctions with sponsored policy resources proposal. In paragraph 22 the commission’s order states, we intend to use the minimum offer price rule to address the impacts of State policies on the wholesale capacity markets, and minimum offer price rule will be the “standard solution” to manage the impact of State policies.

I know that there’s been some discussion about State opportunity, State rights. But Commissioner Glick, I would like to hear from you.

I know you dissented due to this section. Can you explain your concerns about the use of MOPR to interfere with state policies?

Mr. Glick. Thank you, Mr. Tonko.

Yes, I did dissent and dissented in large part to that paragraph 22 that you referenced.

In large part, I don’t believe the Federal Power Act gives FERC the ability to make resource decisions. I think it’s up to the States to do that. In addition to that, I have some grave concerns that it’s actually going to dramatically increase the cost of electricity in these regional markets as well because states may still choose to pursue these policies, but if those resources have been replaced with another generation of resources it’s just going to lead to over-billing and then consumers are going to pay more.

Mr. Tonko. And thank you for that.

And do you believe there’s a role for governmental programs to address legitimate policy considerations that arise as a con-
sequence of power generation such as clean air or climate change, if I dare mention that?

Mr. GLICK. Absolutely. These electric markets, for the most part, don't take into account externalities. So I think States and the Federal Government both have a role in ensuring externalities such as greenhouse gas emissions need to be addressed in another manner.

Mr. TONKO. And I believe you're indicating this, but just for clarity, if MOPR is a standard solution, could it result in consumers paying more to prop up generators that run counter to the policies adopted by those states?

Mr. GLICK. Absolutely. That's one of my significant concerns, yes.

Mr. TONKO. In my home State of New York, we recently implemented a clean energy standard to make significant reductions in greenhouse gas pollution, which is not currently priced into the market.

Should New York have the right to determine its energy future and protect its citizens from environmental impacts?

Mr. GLICK. Certainly New York should have the right and I think one of the concerns if you are supportive of these capacity markets is that if State policies are then overturned by FERC decision making those States are going to cause their utilities to pull out of these capacity markets.

Mr. TONKO. Yes. And I know you all supported the storage order. But similarly, we are seeing States enact or consider mandates and incentives for storage resources.

Like you all, States have recognized the benefits of these technologies including reliability benefits and want to see them as part of their resource mix.

As storage resources are able to participate in capacity markets, might some of these State policies come into conflict with the MOPR solution?

Mr. MCINTYRE. I think there's a very little danger of that under paragraph 22.

Mr. CHATTERJEE. If I could just add to that, Congressman, in regards to specifically paragraph 22.

I voted for the underlying CASPR order because I thought it was important and a necessary step in ISO New England. I put a great amount of time and effort into it.

Having worked in this chamber before, you don't always agree with every single word of legislative text on a bill that you vote for and I think, going forward, I thought it was more important that CASPR passed than to focus on every word of paragraph two, what's in there, and I agree with the valid concerns that you're raising.

Mr. TONKO. So with that being said, is there a need for addressing this as we go forward?

Mr. CHATTERJEE. I think that, as the chairman quite eloquently spoke to earlier, that juxtaposition, that collision between market forces and our wanting to uphold these markets with state policy rights and state interventions that is going to be something that we continue to juggle with and I, for one, believe that some accommodation is necessary.
Mr. Tonko. Well, I am proud of the efforts my State is making and as a downwind State we don’t want to be impacted by poor policy.

So with that, I appreciate all of your comments and I yield back, Mr. Chair.

Mr. Upton. Gentleman’s time has expired.

The gentleman from Illinois, Mr. Kinzinger.

Mr. Kinzinger. Thank you, Mr. Chairman.

Thank you all for being here and spending some time with us today. We appreciate it, and I just want to thank you also for your commitment to making sure that our homes and businesses have reliable energy. I think we all recognize how vital your mission is to our nation’s economic and national security. That being said, our main concern about the resiliency and reliability of our energy supply.

For years now, we’ve recognized the precarious situation that our nuclear plants are in. My district is home to four nuclear power plants and—which is the most in the country and it accounts for 12 percent of the Nation’s nuclear power.

These plants provide good jobs. They’re good for our environment and I think we’ve seen that they’re proven performers during extreme weather events, whether it’s Polar Vortex, hurricanes, things like that.

Yet, two plants in Illinois are still almost closed. Thousands of jobs and a significant amount of clean energy were almost lost. The State of Illinois had to step in to recognize the important role that these plants play in our state economy but also in the reliability of our energy supply.

Unfortunately, now other plants in other States are facing the same fate. So to the whole panel, as you know, in some wholesale energy markets certain resources like nuclear are struggling to recover costs and remain competitive, which has led to the earlier retirement of plants that could otherwise continue to run for decades.

Do you think energy markets can better value resource attributes for all types of energy generators and what about resiliency and reliability specifically?

Mr. McIntyre. Congressman, I will jump in first here. Thank you for the question.

Mr. Kinzinger. Sure.

Mr. McIntyre. We have acknowledged here the importance of ensuring that States are able to exercise their legitimate role in making resource decisions and expressing resource preferences through law, such as you have acknowledged that Illinois has done with regard to the nuclear fleet there, and we just have to ensure that with regard to the wholesale markets that we oversee that rates are indeed just and reasonable, which is our longstanding statutory standard, and that nothing done at the State level amounts to a pressing of the thumb on the scale or, as my colleague, Commissioner Powelson has said, picking winners and losers in a way that we would regard as inconsistent with the statutory role——

Mr. Kinzinger. But let me ask you, kind of more deeply on that, is there a value to the reliability issue? Is there a value to resiliency, reliability, things along that line?
Mr. MCINTYRE. As to nuclear?
Mr. KINZINGER. Yes.
Mr. MCINTYRE. Certainly my view is we very much need to be an all-of-the-above. We need an all-of-the-above policy in terms of satisfying our nation’s generating needs and I certainly personally include nuclear in that mix.
Mr. KINZINGER. Well, that’s great. I appreciate that.
But the question is do you think that you can better value re-source attributes like that to nuclear, for instance?
Mr. MCINTYRE. That’s a question that’s before us now in our on-going proceeding on grid resilience. Are there resilience attributes that are present but are not being adequately compensated?
If the answer to that question is yes, then I think we’ve got to decide what steps are appropriate.
Mr. KINZINGER. OK. Anybody else want to add to that?
Mr. POWELSON. I would pick up on it. I heard earlier from Chairman Walden we talked about customers and customers having choice in these competitive markets.
In your State, your former governor and your legislature adopted electric restructuring. Those nuclear plants you referenced, customers paid a competitive transition charge as part of a stranded cost investment.
And so here we are today in my State and your State where we have—we are the second largest nuclear production State—where something that was “too cheap to meter” is coming back into the market, whether it’s a value around resiliency, and we are being asked—theoretically, your constituents are being asked to do another stranded cost for those assets.
So if I am a gas operator or I am an emerging technology in the market, I am not getting any type of backstop for my resource, and I could be clean and efficient and resilient.
So I think, to the chairman’s credit, we are looking at that and developing this record. There are characteristics of nuclear plants that will clear in these markets. It’s a concern that I’ve seen in my State that where a standalone nuclear reactor like Three Mile Island is under tremendous stress, and why is that?
Well, it’s because 100 miles north up the 83 corridor is gas coming out of the ground at $1.21 per MMBTU and a power plant that has a much lower cost to run and can provide baseload resource on the grid.
Mr. KINZINGER. But I think the question is long term. How do we value the fact that that may change? It may go from $1.20 to a billion dollars, right? In which case now we find ourselves, as some European markets and other markets have that undervalued nuclear power in a tail chase against the cost of electricity.
Specifically, I just got back from Australia and they’re finding themselves in that kind of a situation as well.
So my time has run out. I thank you all for being here and, Mr. Chairman, I yield back.
Mr. UPTON. Thank you.
The chair would recognize Mr. Griffith.
Mr. GRIFFITH. Thank you, Mr. Chairman. I appreciate it very much. A lot of good information floating around here.
I want to go talk about pipelines. We’ve talked about how we need pipelines to get the natural gas where it needs to go, particularly in the northeast.

But in the Commonwealth of Virginia, we have two pipelines coming through right now pretty much at the same general area, and people have a lot of questions and I have a lot of questions, and FERC can do a better job. And I talk to you all about this because a lot of you all are new and we got to figure it out. And so I appreciate, Mr. Chairman, you revisiting the 1999 standing policy on pipeline applications. But let me just tell you about the one coming through my district.

One comes through my district and one doesn’t but they’re fairly close together. I learned about when a member of a board of supervisors in the county called me up and said there’s surveyors all over the county. Nobody knows what they’re doing but they claim it has something to do with a gas pipeline.

Now, that’s not your all’s fault. I get it. That’s somebody else’s fault—the folks who were not informing the elected officials. But I didn’t know anything about it. The county didn’t know anything about it. Nobody knew anything.

Then comes FERC, adding insult to injury. Had two public hearings. Goodlatte, Hurt, who was here then, and myself begged for more public hearings so that people could travel a shorter distance to get to these hearings because it was affecting their communities.

Didn’t happen. Crickets. And so I am glad you’re looking at it and I am going to assume, Chairman McIntyre, that this new plan that you’re looking at will review the public comment meeting process as part of your evaluation.

Is my assumption correct? Yes or no.

Mr. McIntyre. Yes, it is correct. That’s very much within the scope of what we intend to review.

Mr. Griffith. And can I further assume that you are committed to working to ensure there’s a method by which FERC offers full and transparent comment from the public about potential projects? Can I make that assumption as well? Yes or no.

Mr. McIntyre. Yes.

Mr. Griffith. I have a bill and it’s been so frustrating that Senator Tim Kaine and I—we don’t generally agree on a lot of things—we both have bills in. Now, we got different versions because we don’t always agree on things, but we have bill in on this.

Mine is H.R. 2893, the Pipeline Fairness and Transparency Act, and this is to express these concerns that our constituents have been living with now for several years and still feel very frustrated.

But I would like to even look at going further than that. So I want you all’s input on that. But I would also like input on things that we can do like on placing the lines, on putting the lines in the same corridor.

While the folks in that corridor may not appreciate it, you don’t have two different sets of communities all across the Commonwealth of Virginia being disrupted, and then maybe taking a look at where are the companies and what are the policies where the companies are placing not only the pipeline but the pumping facilities to move the pipe down the line and do they need to be quite as big. A lot of folks are concerned about that.
So as we go forward, are you all willing to work, and I would ask each of you, are you willing to work with us to try to get some legislation that makes folks feel like it’s not just being crammed down their throats but they actually have input and that somebody out there is actually listening?

Mr. McIntyre. We welcome the opportunity to work with you on that. I don’t want to leave you with the false impression that we don’t have mechanisms in place today for proper public input because we certainly do, and one of the key issues that’s before us even under our existing policy is to make a determination as to whether a particular existing project is needed and that’s to root——

Mr. Griffith. OK.

Mr. Griffith. Well, and I will be happy to give more answer, but my time is running out and I’ve got another subject to hit.

But I will just tell you the frustration level in Virginia is so high, that while you all have a system I appreciate you looking at it because it apparently isn’t working to give confidence to the public, and I appreciate that.

Now I’ve got to move on to some issues related to businesses and homes that are on non-Federal hydropower project facilities. I have gotten a lot of questions from Friends of Claytor Lake that I will submit for the record and hope that you all will answer after the fact because we have some real issues related to shoreline management plans. This issue didn’t really develop until in the last 10 or 15 years and so we have some questions about how that goes forward.

I picked up Robert Hurt’s bill on shoreline management, the SHORE Act, which is H.R. 1538, and I hope that you all give us some input on that. But I think this is something that we need to work on together, because a lot of folks feel their property rights have been affected and, of course, economic development has been affected as well.

So I look forward to working with you all on those issues as well, and I see that my time is up and, Mr. Chairman, I yield back.

Mr. Upton. The gentleman yields back.

Mr. Bucshon. Thank you, Mr. Chairman.

Chairman McIntyre, in your testimony you state that one of your top priorities is to protect and promote the resilience of the bulk power system. I am pleased to hear that we share this same priority. But I remain concerned with the lack of urgency to address properly valuing reliable and fuel security energy sources.

There are many sources of energy that can power the grid and I am a supporter of an all-of-the-above energy strategy. However, after every major winter storm, whether it be the 2014 Polar Vortex or the most recent bomb cyclone, studies conclude that coal-fired electricity was needed to prevent major blackouts, establishing coal-fired electricity as one of the most reliable, fuel-secure, and affordable energy sources available.

Just so you know, every coal mine in the State of Indiana is in my district and many of the coal-fired power plants. Even with its reliability, coal-fired power plants continue to retire in alarming numbers for many of the reasons we’ve already discussed. Thirty-
nine coal-powered generating units have been forced to close in my home State of Indiana alone.

I am supportive of the efforts you’re taking to properly value traditional baseload generation that provide our nation with a more reliable and secure grid. But I am concerned that if we don’t act soon, more coal plants will continue to retire prematurely, leaving my constituents in my State without reliable energy and many of the risks—that risk of losing their jobs, as was outlined by Congressman McKinley about how that goes down the line.

This is why I have introduced H.R. 5270, the Electricity Reliability and Fuel Security Act, which would create a temporary tax credit covering only a small portion of the cost to operate and maintain existing coal-fired power plants. And in fact, just yesterday, Senator Capito from West Virginia introduced a companion bill to H.R. 5270 in the Senate showcasing the urgency of this matter.

I believe the temporary tax credit, which would last for 5 years, is necessary to maintain the reliability and resilience of the grid while policy makers work together to agree on a long-term plan for the grid.

We need a little bit more level playing field. Chairman McIntyre, can you provide an update on FERC’s efforts on this issue and are you supportive of congressional action to maintain a reliable grid while the commission collects comments on how to best address grid reliability?

Mr. McIntyre. Yes, sir.

The question you have raised about coal is very much wrapped up within our grid resilience work, particularly given the way that the grid resilience topic was teed up for us in the first instance by Secretary Perry with the Section 403 action—the NOPR that was presented to us for our consideration.

So we have to look at this and ask ourselves the question whether those coal-fired generating resources are contributing grid resilience attributes in a way that cries out to be compensated at levels higher than they currently are receiving in the marketplace.

If the answer to that question is yes, then I think we have to address the very difficult question of what is it appropriate for us to do about that. The question is completely legitimate and, as you suggest in your statement, Congressman, this is broader than just grid resilience.

There are economic issues here in play as well. So we understand how important the issue is.

Mr. Bucshon. Yes. When we are importing LNG for energy sources and we are using a lot of energy from our friends in Canada, to turn a blind eye to our own ways to generate energy, at least in the short run, is not the right thing.

Mr. Chatterjee.

Mr. Chatterjee. Congressman, I just want to echo that I share your sense of urgency. I am optimistic about the resilience proceeding and the docket that we have ongoing.

But I am concerned that it’ll take time and that’s why, during the course of our consideration of Secretary Perry’s NOPR, I had advocated for an interim solution.
What I’ve come to learn in the subsequent months since we dealt with that NOPR is there are real challenges and in sight of the situation in New England—the ISO New England fuel security study, you know, highlights that and I do think the moment will come sooner rather than later when we are going to have to confront this and your sense of urgency is right on and look forward to seeing how the legislative effort you have progresses.

Mr. BUCSHON. Thanks.

And also just because—all of the above, earlier this Congress the House unanimously passed my bill 2872, the Promoting Hydropower Development at Existing Non-Dams Act. You may or may not be aware of that. But it would promote hydropower development at existing non-power dams by establishing an expedited licensing process for qualifying facilities that would result in a decision on an application 2 years or less.

Senator Portman and Senator McCaskill just recently introduced a companion bill in the Senate and I think we have a good chance of getting that across the finish line so that we can convert some non-hydro power generating dams across this country in ones that produce long-standing clean energy.

Thank you. I yield back.

Mr. UPTON. Mr. Johnson.

Mr. JOHNSON. Thank you, Mr. Chairman, and thank the commission for being here with us today.

I’ve been closely following the discussion surrounding DOE’s NOPR that the commission rejected. As some of you probably know, my district in eastern and southeastern Ohio is home to an abundance of natural energy production, particularly natural gas and coal.

So these issues hit especially close to home and I take notice when major employers in my district speak out on this issue. For instance, the CEO of Murray Energy recently stated that FERC did not do its job when it rejected this proposal—that is, the DOE NOPR.

Commissioner Powelson, I believe you recently made some comments indicating that you disagree with Mr. Murray. Can you expound on that?

Mr. POWELSON. I take offense to the word feckless being used to colleagues that I serve with here, and as I mentioned earlier——

Mr. JOHNSON. That term was what again?

Mr. POWELSON. Feckless, used to describe the FERC, my colleagues, and the 1,320 employees that show up to work every day to do their job around safety and economic regulation and making sure our wholesale power markets are functioning. So——

Mr. JOHNSON. I think your statement on social media, though, was more about conducting a debate, right?

Mr. POWELSON. I refrain from going down that path. I thought it was inappropriate and I dialed it back rather quickly.

Mr. JOHNSON. All right.

Commissioner Chatterjee, I’ve read your testimony and wondered if you had any further thoughts on this issue.

Mr. CHATTERJEE. Yes, sir. Obviously, throughout our consideration of the DOE NOPR, I expressed great sympathy with what Secretary Perry had proposed and I saw first-hand during my time
serving Leader McConnell and working in the Kentucky delegation, working with folks like yourself through various energy caucuses in the Congress the severe impact that was taking place in whole communities throughout Appalachia, throughout Kentucky, throughout Ohio.

The challenge we had is serving at the commission at the independent regulator. We have to work based on the record that was before us and, unfortunately, the record did not support compensating fuel sources based on having that onsite fuel capability. That doesn't mean that the question that was posed by Secretary Perry wasn't the right question and that doesn't mean that in our further work we won't be able to address these sensitive issues.

But speaking to the manner in which the NOPR was handled, I am a conservative. I believe in a narrow interpretation of statute and my narrow reading of the record in this case was it simply didn't support it, and while I have deep sympathy for the sentiments that Mr. Murray, folks in your community, are expressing and the concerns they have about the economic impact, the job impact, the cultural impact of these shutdowns from the seat I sit in now, our records simply didn't support taking action at that time.

Mr. JOHNSON. Thank you for clarifying.

Moving on to another subject, we've also discussed cyberattacks and data policy violations have been issues recently and frequently highlighted in the news—attacks on U.S. government agencies and universities including FERC, for example, the recent Energy Services Group attack, and the platform policy violation by a Facebook developer.

In light of these events, what are the commission's thoughts on its current security practices for protecting sensitive information such as CEII, Critical Electric Energy Infrastructure Information, that FERC collects from regulated energy companies and shares with third parties?

Is there any discussion on evaluating methods to strengthen those practices? And let me go back to you, Commissioner Powelson, in light of your focus on cybersecurity in your testimony. Do you have any insight on this issue?

Mr. POWELSON. Well, I think the work that's being done right now working with NERC and refining some of these standards, one, there's kind of four points we are looking at.

One is the vendor remote access to data, also software authenticity and information system planning, and then vendor risk management. This all coincides with what I call the, say, best practices around cyber hygiene, and to your point of that critical infrastructure information being lockboxed and protected is critically important. You mentioned the situation that unfolded at the FERC where our internal system was violated.

We are still looking at that issue, making assessments on what kind of data might have been exposed, and I think to the work of the folk at the FERC, we seem to be in a good spot in developing proper protocols around fishing expeditions and making sure that we are hygiene proficient as well, and that's what happened in that particular case.

Mr. JOHNSON. OK. Well, thank you very much.

Mr. Chairman, I yield back.
Mr. UPTON. Mr. Long.
Mr. LONG. Thank you, Mr. Chairman, and thank you all for being here today and for your testimony.

Chairman McIntyre, recently City Utilities of Springfield, Missouri, has seen a substantial rise in transmission costs in the Southwest Power Pool. Most of these costs are related to funding transmission projects outside of Missouri.

Some of the projects allow utilities to access renewable energy located outside the State. However, the benefits far outweigh by the rise in transmission costs for the projects located far away. Southwest Power Pool's own studies have shown the City Utilities' transmission costs and energy prices are substantially higher than other customers in the Southwest Power Pool.

What will FERC do to address the issue of rising transmission costs in the Southwest Power Pool's footprint?

Mr. McIntyre. I am not familiar with the study you reference, Congressman. But I will say that, as a general matter, our transmission costs allocation is subject to policies under a landmark order we call Order 1000 that governs our transmission planning processes and the determination of how to allocate the cost of transmission projects across their geographic footprint.

Generally speaking, it would be surprising that a particular entity paying those transmission costs is paying significantly higher than other entities served by the same facility.

Mr. LONG. These are studies that Southwest Power Pool—they had their own study, City Utilities—Southwest Power Pool did. So I will get you that information, and if you can have your folks look into it and get with my people, I would really appreciate it because——

Mr. McIntyre. Yes, I was going to make that offer. We’d be delighted to.

Mr. LONG. It sounds like an egregious situation.

So will FERC address the concerns that some customers like the City Utilities are paying for assets for which they have no benefits?

Mr. McIntyre. Well, we do have processes in place today that enable any entity that feels that it is paying for something it should not have to pay for—in effect, to initiate a complaint proceeding with us—and our role at that point would be to address the merits of the complaint and determine whether there is legitimacy to it and, if so, what steps we should take to remedy the situation.

Mr. LONG. OK. Well, I know you have——

Mr. McIntyre. This is also something we can follow up on.

Mr. LONG. Yes. I know you have some good folks and I have some good folks so, hopefully, we can get them together and I think we are going to be in close contact for a while on that until we get some answers.

Mr. McIntyre. I would welcome that.

Mr. LONG. Thank you.

And Commissioner Chatterjee, in May or on May 22nd in 2011—I had been in Congress for 5 months—and we had an F5 tornado ravage through Joplin, Missouri, in my district—killed 161 people, took out 8,000 homes, 500 businesses, leaving 161 people dead and thousands without power.
In your testimony, you talk about the importance of planning for potential catastrophes as it relates to electric vulnerabilities in a region and you highlight the work being done by IOS New England.

Can you talk about the proactive work being done to mitigate these risks and how other RTOs and ISOs can plan for catastrophic weather events?

Mr. Chatterjee. I want to start, Congressman, with saying that, such events like that are tragic. They can devastate communities and, obviously, we all need to work collectively to get ahead of these kinds of tragedies.

We at the commission focus on electric reliability and in ensuring that power remains available, that the lights stay on. The reason we are undergoing this resilience proceeding is we want to make sure that in the event that the power goes off that it can be restored quickly. I think as these types of severe weather events become the new normal, we've got to take great steps to get ahead of that.

I was actually in Georgia last week meeting with folks from Georgia Power about the extensive efforts that they take in advance of storm preparation and afterward. And so I think the private sector will continue to do a tremendous job.

I think our linemen and women are some of the bravest people in this country. They should be honored and recognized for the sacrifices that they make and we at the commission will continue to do our job to maintain electric grid reliability and I am counting on the great linemen and women of our country to be responsive in the light of tragic events like, unfortunately, to your district.

Mr. Long. OK. Thank you.

And I am running close to being out of time so, Chairman McIntyre, I have a question that I will get to your folks from my folks, once again, concerning the Iranian hackers' attempt to breach FERC's computer systems and I know we are in an unclassified setting here.

I was going to have you explain as much in a unclassified setting as you can. But I will submit that in writing to your office and I would like to have some answers on that. And also what steps are being taken to prevent this from happening again?

Mr. McIntyre. Absolutely, sir. I look forward to following up with you and your staff on that.

Mr. Long. Mr. Chairman, I yield back.

Mr. Upton. Mr. Walberg.

Mr. Walberg. Thank you, Mr. Chairman, and thanks to the panel.

This is a panel we've looked forward to for a long time. It's good to have you all here.

I want to dive right in with a fairly straightforward question which I hope will be just a simple yes/no answer. We can all agree that the energy landscape is vastly different than it was back in 1978 and even in 2005.

Do you believe that PURPA should be updated or modified to reflect today's energy environment? Yes or no, and beginning with the chairman.

Mr. McIntyre. Yes, I believe it's time for us to look at that issue.
Ms. LaFLEUR. Yes, I think it would be timely for Congress to look at PURPA.

Mr. CHATTERJEE. Yes, but I think not only should Congress look at PURPA but FERC should look at our own regulations and see what steps we may be able to take.

Mr. POWELSON. Yes, PURPA needs to be modernized.

Mr. GLICK. I think it’s appropriate for FERC to take a look at some of the issues of PURPA but I think the major issues that were addressed in the 2005 Energy Policy Act need to be addressed by Congress in terms of PURPA’s future.

Mr. WALBERG. Well, I appreciate the fact that it’s a generally yes answer. I think PURPA right now is holding us back on an all-of-the-above energy plan.

Its intentions, certainly, assisted in moving forward renewables. But right now, we are holding back some of the renewables in being more efficient in the process. So I appreciate that.

Chairman McIntyre, I am pleased that FERC held a PURPA technical conference in June 2016. The docket has been open for nearly 2 years now and I am curious as to the timeline for acting and what possible actions you believe the commission could take.

Mr. MCINTYRE. There are a number of different actions we could take. As has been referenced, any significant overhaul of PURPA would have to come from the Congress. Within the scope of FERC, some of the issues that we look at and that we hear from constituents on—constituencies, I should say—stakeholders on, are have we properly treated the question of how a particular project is measured.

Some accuse some of the players in industry as engaging in gamesmanship in how they slice the size of a project—to take a project of a certain size and break it into smaller components for purposes of PURPA treatment so that it gets the benefit of being considered to be a so-called qualifying facility under PURPA. That’s one of many examples I could give you. The States have a role here too because it is the States that determine the rate at which PURPA generators are compensated—the so-called avoided cost rates.

So I think that these are issues that we can look at within our existing statutory authority.

Mr. WALBERG. I appreciate hearing that. I would agree with you and I agree in looking at PURPA myself that while Congress I think ought to take action on it, yet there are significant upgrades, modifications that I believe FERC can make on your own, and then we can follow on and be an asset to you.

Commissioner Chatterjee, you stated in your testimony that significant changes related to PURPA would require congressional action, as we agree. But I am under the belief that FERC can address many issues with PURPA right now, including problems with the 1-mile rule, which I think goes into gaming, as you talked about, Chairman, and reduce the 20-megawatt threshold of a QF in organized markets if the FERC decided to do.

So would you consider, Mr. Chatterjee, fixing the 1-mile rule and adjusting the megawatt size of QFs in organized markets a significant change?
Mr. CHATTERJEE. Thank you for the question, Congressman. Just to clarify, what I said in my testimony was that major structural changes to PURPA need to come from Congress but that does not mean that we can’t look at things within FERC’s own regulations and I do believe both issues that you have identified the 1-mile rule and the 20-megawatt threshold are things that FERC could consider and address.

I think the record is already there to potentially act on the one-mile rule and while additional development of the record could be helpful on the 20-megawatt threshold, there is already arguably enough in the existing record that the commission could proceed on it. And in the limited time I served as chairman I stated that this was a top priority of mine and I hope to work with Chairman McIntyre and my colleagues to work on these and other elements of it.

While you have an excellent bill, the likelihood of that bill getting through my former colleagues in the United States Senate could be a challenge and therefore I think it’s incumbent upon us to do what we can.

Mr. WALBERG. Don’t curse the project.

[Laughter.]

Thank you. I see my time has expired so I yield back.

Mr. UPTON. Mr. Duncan.

Mr. DUNCAN. Thank you, Mr. Chairman.

Commissioner Powelson, you mentioned in your opening statement I believe that FERC is aware of the frequency of cyber and physical threats to the Nation’s infrastructure and that you believe that threat is only increasing.

And I want to commend the commission for making cyber and physical security a top priority. How can Congress work together with you and with the administration to make this a top priority in our upcoming infrastructure reform bill?

Mr. Powelson. Congressman, great question, and I think it starts with where we’ve evolved over the last 8 years with building these cyber protocols. Interagency cooperation has been critically important.

It started off really as a silo mentality, and now the dissemination of that information and that capacity building, as I mentioned earlier, down to the States, your State included, that’s a big challenge, going forward. But I think it’s a resource issue. Our operation at the FERC there’s probably 20 to 25 people who are fully engaged in this effort—the effort that Secretary Perry is undertaking with his Office of Cybersecurity another step forward.

But I just think it continues to evolve. There’s no silver bullet to this, if I could use that expression lightly.

Mr. Duncan. Are you all working with any private entities? And I guess the question is are you familiar with what Clemson University is doing with grid simulator and infrastructure simulator down in Charleston? Are you all familiar with that?

Mr. Powelson. So two things that you’re seeing across the States that we are involved with—one is the GridX exercise, which I understand is run by NERC. We also have these tabletop exercises in my home state. We did what we call a black sky event and
you look at all these different scenarios and under I guess Chairman——

Mr. DUNCAN. Is it primarily looking at cyberattacks when you do that?

Mr. POWELSON. It is all part of that, yes.

Mr. DUNCAN. Because, you’re familiar with the geomagnetic storm that have hit in the northeast and Canada—power outages and— we’ve got to be prepared for both natural GMDs but also EMPs—manmade—because we’ve got “Rocket Man” in North Korea that could definitely send a nuclear weapon into the atmosphere and create an EMP and I hope that you guys are looking at that as well.

Mr. POWELSON. I think from a preparedness posture, I think we—I can say we are. But it is—again, it’s evolving. Again, another great step is the work at DOE in their cyber office, and collaborating with the states. I firmly believe we are helping states build much-needed capacity.

Mr. DUNCAN. Can we drill down on that, helping states? And let me ask how you’re helping, say, the private or the small cooperative— electrical cooperatives in the states. What are you doing to help those guys?

Mr. POWELSON. I don’t know. That’s a good question. The reason I don’t know is some of these entities are not regulated by a state public utility commission. They’re part of public power.

But I do know that public power is participating in these cyber protocols. So——

Mr. DUNCAN. Just bringing it up with Duke Energy then, and you’re working with companies like Duke and Southern?

Mr. POWELSON. We are.

Mr. DUNCAN. OK. In what ways? Technical advice, inviting them to these simulations?

Mr. POWELSON. Well, Southern—under their chairman and CEO Tom Fanning, he’s a leader in the ISAC. We also do it through an audit process. Lynn Good, who runs Duke Energy, is also active in that. We’ve had through the working groups at EEI, the evolution of a cyber mutual assistance protocol which, again, was a newly tasked effort.

Again, these are merging resources that are coming out of the discussions here in Washington. I think it’s a good posture for us to be leading. But there are challenges and I think those challenges start with providing those resources to build up these capacities.

Mr. DUNCAN. As we work on the infrastructure bill. I am one member of Congress that hopes we will look at grid hardening as part of the infrastructure package that we do.

Let me just ask one further question. Duke Energy has the Bad Creek project in northern Pickens County, which has a hydro storage facility to pump water from Lake Jocassee to a hydro storage facility, release it. Turns the turbines during peak demand, provide electricity for that demand, and then during low peak it’ll pump the water back up, reverse the turbines, and store that water.

It’s a great energy storage concept. I know we are doing that with solar power. How active are you all involved with—I think Ms. Castor asked that question—with the hydro storage for basically battery capacity for wind and solar?
Mr. GLICK. Mr. Duncan, if I may, I think we actually issued a rule several weeks ago which actually provides—and it's not only for battery storage but also for pump storage in terms of facilitating their participation in the wholesale markets and I think in addition to that, the commission has authority over the licensing of hydro projects as well. So we'll be involved in that.

For the most part, it's actually just facilitating or ending or eliminating those market barriers that currently exist for those types of technologies participating.

Mr. DUNCAN. I thank you for that.

My time is expired. I yield back.

Mr. UPTON. Mr. Lance.

Mr. LANCE. Thank you, Mr. Chairman, and I want to thank you and Ranking Member Rush for permitting me to participate today. I am a member of the full committee but I am not a member of this subcommittee.

Chairman McIntyre, on January 19th, FERC issued a certificate of public convenience and necessity to the PennEast Pipeline Company authorizing a natural gas pipeline through Pennsylvania and New Jersey, including in the congressional district that I serve. The certificate also gave PennEast the legal ability to file eminent domain lawsuits against private landowners.

As FERC opens a docket to re-examine the pipeline certification policy, what kinds of measures will you consider to ensure a robust economic analysis of public need, especially in those instances when precedent agreements are largely signed with affiliates of the owner like in the case of PennEast?

Mr. MCINTYRE. Well, as you know, Congressman, we have initiated a fresh look at our 1999 certificate policy statement that addresses some of these issues.

We are looking forward to robust public input, input from stakeholders and the public on the important issues involved here including the ones that you have cited.

Mr. LANCE. I thank you.

Commissioner LaFleur, how will you ensure a project's environmental impacts are sufficiently considered, a topic you discussed in your concurring opinion?

Ms. LAFLEUR. I think that's one of the main issues we will be teeing up for looking at when we look at the policy statement, both how we best do our environmental work on the traditional parts of the pipeline but also downstream impacts of the end uses that the pipeline contributes to, including climate impacts. I think that'll be directly to that.

Mr. LANCE. Commissioner Chatterjee, what steps will you take to prevent negative consequences on landowners, a concern you described in your concurring opinion?

Mr. CHATTERJEE. Yes, sir.

I did have concerns about landowner protection and it's something that as we explore the revisititation of our pipeline certificate process I want to ensure that landowners' voices are heard, that they understand the steps available to them to potentially mitigate concerns that they may have—rerouting and other types of elements.
I want to make sure that they feel that their voices are recognized as part of that process and there’s a commitment.

Mr. LANCE. Thank you.

Chairman McIntyre, as FERC reviews the pipeline certification policy, how will you ensure State and local rights are adequately protected?

This past June, the New Jersey Department of Environmental Protection denied PennEast a freshwater wetlands individual permit and a water quality certificate, which are required to begin construction under the Natural Gas Act.

What steps, if any, will FERC take to safeguard state and local autonomy?

Mr. McINTYRE. There are certain actions that are well beyond our reach in terms of our ability to restrict State roles assigned to them by statute.

Often, it is the case that these questions that come up have to be resolved by the courts and I do not expect that to change anytime soon. But, certainly, we are reflective of and respectful of the State’s role.

Mr. LANCE. Thank you. It’s my considered judgment that this is not in the best interest of the United States. It’s certainly not in the best interest of New Jersey, and we in New Jersey—our State officials have significant concerns with this.

Some of the pipeline would be under preserved land and there is in the underlying statute I think written in the 1930s a belief in comity with state statutory law and I would hope that the commission would re-examine all of this.

On a completely unrelated issue, Chairman McIntyre, with regard to FERC’s March 15th revised policy statement on the treatment of income taxes for masters limited partnerships, could you please explain your rationale in advancing a blanket prohibition of recovering of an income tax allowance for oral MLPs? You may have discussed this previously. But I respectfully ask you that question.

Mr. McINTYRE. Yes, that’s fine, Congressman.

We were faced with an appellate court decision directing us to address that specific issue. We took action that we regarded as appropriate in light of the directives from the court.

Mr. LANCE. Does any other member of the commission wish to discuss that?

Commissioner LaFleur.

Ms. LaFLEUR. I would just say that even before the United Airlines case that led to the March order there was an earlier case where we were chastised by a court for double taxation.

It’s been brewing ever since then. We did a notice of inquiry and took a lot of testimony from people in the pipeline industry and others to try to build a full record and did not find any way to achieve the requirements of the court other than the way that we——

Mr. LANCE. Thank you for your responses, and I yield back 3 seconds. And thank you very much, Mr. Chairman.

Mr. UPTON. Gentleman’s time has expired.

Mr. Kennedy.

Mr. KENNEDY. Thank you, Mr. Chairman.
I want to thank all our witnesses for being here. It's nice to have a full complement of the commissioners testifying before Congress. Grateful for your service. Grateful for the time. For those of you that I have not met yet, I look forward to working with you. For those of you who I have, welcome back.

Over the past 5 years, I've become very familiar with FERC processes, more so than I ever thought I would. I've appreciated the willingness of both members from the commission and, critically, your staff to engage with both me and my staff on this issue and I look forward to continuing that cooperation in the future.

As you all know, the issue of transparency and the opportunity to be heard have been a focal point of my work here in Congress and with the commission, and you have heard the issue about transparency come up a number of times from my colleagues today. Several years ago, ratepayers in my home region, ISO New England, were shut out of the administrative and judicial review processes due to an unintended consequence in the Federal Power Act.

Chairman McIntyre, I gratefully appreciate your comments in your written testimony describing your commitment to transparency, sir, and as I've said before, if there's any lesson that I've learned from Washington is that the more complex an issue is, the more likely that someone's being taken advantage of. So we've worked on a bipartisan basis on this committee to advance, in my estimation, a straightforward bill to address that issue. We are working with our colleagues in the Senate to try to find agreement on the legislation. Under Section 205, the rates are allowed to take effect by operation of law if the commission does not act within a statutory time period of 60 days.

To start, I guess, with Mr. Glick, to the extent that you know, sir, how often does that happen? How often do rates take effect by operation of law? Are you familiar at all?

Mr. Glick. Thank you, Mr. Kennedy.

I couldn't give you an exact number. I will supply that for the record.

I can tell you it is relatively rare, although it is certainly foreseeable. We have five commissioners now, you would think, but the commissioners do recuse themselves on certain occasions and you could very well have a 2–2 vote, in which case the commission would actually not be able to stop or prevent a particular proposed change in the tariff under Section 205 of the Federal Power Act from becoming law.

Mr. Kennedy. And is there a difference—if, for instance, the commission fails to act within 60 days? A difference in the actual distinction?

Mr. Glick. The only distinction is that, and I think as you pointed out, that the party that feels itself aggrieved doesn’t have the ability to seek rehearing or take it on appeal to the D.C. Circuit.

Mr. Kennedy. And how do we know if a commission actually deadlocked? Is there a requirement that a vote be held or is that more out of custom than formal practice?

Mr. Glick. There's no requirement a vote can be held. If, again, if the commission doesn't act at all within 60 days it automatically—the tariff change automatically goes into effect.
Mr. KENNEDY. And so, Mr. Glick, what is the commission doing to ensure that aggrieved parties are not locked out of that review process?

Mr. Glick. Well, again, I think that, at least for this particular issue, I think it does require a congressional change, and I know you have a bill and there’s a bill in the Senate as well Mr. Markey has put forward.

But I think the best we can do is actually ensure as much transparency as possible and involve public participation. But if there is a 2–2 deadlock I don’t think we have the authority currently to address that.

Mr. KENNEDY. And I appreciate that, sir, and I guess I would go back to Mr. McIntyre, given your comments about transparency.

Your thoughts on this issue and whatever else the commission should be doing or can be doing to take on that issue of transparency.

Mr. McIntyre. Thank you, Congressman.

It’s a valid concern, but I personally am heartened by the fact that it arises very, very rarely, and I don’t have a figure for you either. But the one I’ve heard informally within the agency is once every dozen years or so.

Mr. KENNEDY. And, Mr. McIntyre, and I appreciate that, sir. I don’t mean to make light of that. The fire hydrants outside my street haven’t been used all that frequently either. I am glad they’re there because when they do need to be used I hope they work. And so, respectfully, and understood that it doesn’t happen very often, but when it does, it comes with a fairly big consequence, as we saw in FCCA for residents in Massachusetts.

And so just because it doesn’t happen very often I don’t think—well, we can be heartened by it—doesn’t mean that we shouldn’t address the fact because when it does it can be a big deal.

Mr. McIntyre. I agree with you. In terms of legislative approach, if this is something where it would be helpful for us to work with you on language, we’d be happy to do that, because language-wise right now under existing law, unless a party is aggrieved by an order of the commission, it cannot go forward to judicial review.

And so the lack of an order is what would be a stymieing factor there.

Mr. KENNEDY. Yes, I agree.

Ms. LaFleur.

Ms. LaFleur. Well, I am on record in favor of the Fair Rates Act. I believe I’ve testified or done it in a QFR or something before.

I think it would be a good improvement to the Federal Power Act. I was on the commission. I was the chairman of the commission when we split 2–2.

We did put out statements of the underlying views in dispute to provide transparency and I think we worked very hard to avoid deadlocks.

I was in the group that thought that the rates were just and reasonable but I think the act would be a good improvement.

Mr. KENNEDY. I appreciate that.

Thank you, Chairman.

Mr. Upton. Thank you.
Being that there are no further members wishing to ask questions, I would like to thank all of our witnesses for appearing today for sure.

Before we conclude, I want to ask unanimous consent to submit the following documents for the record: a letter from the Utilities Technology Council and a joint letter from the American Public Power Association and the National Rural Electric Cooperative Association.

[The information appears at the conclusion of the hearing.]

And in pursuant to committee rules, I remind members that they have 10 business days to submit additional questions for the record. I would ask that the witnesses submit their response within 10 days upon receipt of those questions if you can.

Without objection, this subcommittee stands adjourned.

[Whereupon, at 12:53 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]
April 17, 2018

The Honorable Fred Upton  
Chairman, House Energy and  
Commerce Committee Subcommittee  
On Energy  
2138 Rayburn House Office Building  
Washington, D.C. 20515

The Honorable Bobby Rush  
Ranking Member, House Energy and  
Commerce Committee Subcommittee  
On Energy  
2188 Rayburn House Office Building  
Washington, D.C. 20515

Re: April 17 Oversight Hearing of the Federal Energy Regulatory Commission  
and the FY2019 Budget

Dear Subcommittee Chairman Upton, Ranking Member Rush, and members of the House Energy and  
Commerce Committee Subcommittee on Energy:

I am writing on behalf of the Utilities Technology Council (UTC) regarding the Subcommittee on  
Energy’s April 17, 2018, Oversight Hearing of the Federal Energy Regulatory Commission (FERC) and  
the FY2019 Budget. Established in 1948, UTC is the global association representing energy and water  
providers on their needs related to the deployment of reliable and resilient Information and  
Communications Technology (ICT) systems. Electric, natural gas, and water providers use ICT networks  
as the backbone for the infrastructure that delivers safe, reliable, and secure energy and water services.  
These networks are essential for reliability, safety, resilience, and security.

UTC applauds the Subcommittee on Energy for holding this important hearing. With FERC operating  
with five commissioners for the first time since 2015, this marks an opportune time to hear from the  
members about their priorities over the next year.

As members of the House Energy and Commerce Committee are well aware, new technologies and policy  
developments are driving a convergence between the electric, natural gas, and telecommunications  
industries. While much of this hearing will likely focus on energy infrastructure such as long-distance  
transmission lines, gas pipelines, and industry resilience, we urge the Subcommittee to also consider the  
interdependencies between the energy and telecom sectors. If not addressed holistically, these  
interdependencies could prevent new technologies like smart meters, smart grids, and infrastructure  
modernization from maximizing their fullest potential.

The backbone of our nation's energy infrastructure system (electric and natural gas transmission  
and distribution lines) runs on ICT networks. These networks—usually developed, owned, and operated by  
utilities—are essential for day-to-day reliability, storm recovery and response, grid modernization,  
security, and much more. Perhaps the most essential ingredient to these networks is the radio spectrum  
that enables wireless communications. Access to adequate and interference-free spectrum is paramount to  
ensure that the networks underpinning the nation’s transmission and distribution systems are resilient and  
reliable.
More specifically, electricity and natural gas providers use these networks for the following essential functions:

- Real-time monitoring of medium- and high-voltage networks (distribution and transmission, respectively)
- Protective relaying
- Energy management
- Outage management
- Distribution management
- Smart metering
- Substation automation

Spectrum is needed for any kind of wireless communication and is a finite commodity. As our nation’s reliance on smartphones, autonomous machines, and other wireless devices grows, the need for spectrum is growing as well. The Federal Communications Commission (FCC) is the federal agency responsible for spectrum allocation. Although FERC and every other federal agency acknowledge the energy sector as the most critical of all critical industries, the FCC’s spectrum policies do not. Utilities are treated like any other commercial enterprise when it comes to spectrum acquisition, making it difficult for our nation’s energy providers to secure needed spectrum.

As this Subcommittee continues its oversight over FERC, we request that Subcommittee members encourage the agency to establish regular meetings with members of the FCC. Such meetings would build understanding between the two regulatory bodies and the industries they regulate, which is especially crucial as the energy and telecommunications sectors become more interdependent.

The full Energy and Commerce Committee has jurisdiction over both FERC and the FCC. Members of this Subcommittee therefore have a unique opportunity to facilitate these discussions and analyze the growing interdependencies between the energy and telecommunications sectors. We have also expressed these sentiments to members of the Subcommittee on Communications and Technology, which has oversight of the FCC. UTC stands ready to assist in this effort. Our organization has subject-matter experts willing to provide Subcommittee members with any information or resources they need.

Again, UTC thanks the Subcommittee for holding this hearing. We appreciate the opportunity to submit this letter and look forward to working with all of you going forward.

Sincerely,

Joy Ditto
President, CEO of the Utilities Technology Council
Dear Chairman Upton and Ranking Member Rush:

We are writing on behalf of America’s consumer-owned, not-for-profit electric utilities to respectfully request you to urge the Federal Energy Regulatory Commission (the Commission) to respect state and local regulatory authority when “behind-the-meter” and other distributed energy resources (DERs) are aggregated for purposes of participating in wholesale electricity markets. We are concerned that the Commission may adopt rules on third-party aggregation of DERs that would further expand Commission regulation into areas that have traditionally been jurisdictional to states and localities under the Federal Power Act. We hope you will agree with the importance of respecting state and local jurisdiction to protect consumers’ access to safe, reliable, and affordable electric service in the communities our members serve.

The Commission is now considering a proposal to enable third-party aggregators to bid DER aggregations into the wholesale electricity markets administered by independent system operators (ISOs) and regional transmission organizations (RTOs) under the Commission’s jurisdiction. Because DER aggregation by third parties poses extremely local technical, economic, and policy issues, the American Public Power Association (APPA) and National Rural Electric Cooperative Association (NRECA) believe that the “relevant electric retail regulatory authority”—which may be the state public utility commission or the local governing board of a consumer-owned utility—is best positioned to decide whether to authorize third-party aggregators to transact with local retail consumers. Expressly reserving that authority to the relevant electric retail regulatory authority would also better reflect the allocation of federal and state jurisdiction laid out in the Federal Power Act.

In February 2018, the Commission issued Order No. 841, which requires ISOs and RTOs to amend their wholesale market rules to better enable electric storage resources to participate. Order No. 841 also established a separate proceeding to consider similar rule changes to enable third-party aggregators to bid DER aggregations into wholesale markets. The Commission held a technical conference on April 10–11 to gather more information before taking final action on this proposal (Commission Docket No. RM18-9-000).

As amply explained by witnesses at that technical conference, the industry must address many complex technical questions and make substantial investments in supporting infrastructure before third-party DER aggregators can participate in wholesale markets. Such participation will require RTOs and ISOs to coordinate with local distribution utilities in ways never before needed. The ability of local utilities to continue to provide safe, reliable, and affordable electric service to their communities could be
diminished. In some communities and regions, it may make sense to move forward addressing these questions and making the needed investments; in others, it may not, at least not yet.

Although Order No. 841 does not address DER aggregators themselves, it does adopt rules governing wholesale market participation by "behind-the-meter" and other electric storage resources on local utility distribution systems that might be aggregated for this purpose. Order No. 841 does not adopt language that the Commission used when it previously provided for the participation of demand response aggregators in ISO and RTO markets (in Commission Order No. 719). That language expressly allows the relevant electric retail regulatory authority to decide whether such aggregators would be allowed to participate in wholesale markets.

APPA and NRECA are urging the Commission to follow that wise precedent in fashioning its rules for electric storage resources and DER aggregators. For this reason, we have requested rehearing of Order No. 841. We will continue to advocate that approach in the Commission’s final rule on DER aggregation. We strongly believe that this is the best long-term course to enabling these emerging technologies to benefit the consumers we serve, and we ask you for your support.

Sincerely,

Susan N. Kelly
President & CEO
American Public Power Association

cc: Greg Walden
    Frank Pallone, Jr.

Jim Matheson
CEO
National Rural Electric Cooperative Association
May 7, 2018

The Honorable Kevin J. McIntyre
Chairman
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Chairman McIntyre:

Thank you for appearing before the Subcommittee on Energy on Thursday, April 17, 2018, to testify at the hearing entitled "Oversight of the Federal Energy Regulatory Commission and the FY2019 Budget."

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. Also attached are Member requests made during the hearing.

To facilitate the printing of the hearing record, please respond to these questions and requests with a transmittal letter by the close of business on Monday, May 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2123 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format toKelly.Collins@mail.house.gov.

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

Sincerely,

[Signature]

Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachments
May 21, 2018

OFFICE OF THE CHAIRMAN

The Honorable Fred Upton
Chairman
Committee on Energy and Commerce
Subcommittee on Energy
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Upton:

Thank you for the opportunity to appear before the Subcommittee on Energy on Tuesday, April 17, 2018, to testify at the hearing entitled “Oversight of the Federal Energy Regulatory Commission and the FY 2019 Budget.” Attached are my responses to the Supplemental Questions for the Record.

Sincerely,

Kevin J. McIntyre
Chairman

Attachments
The Honorable Fred Upton

Question 1: Following his appearance before the Subcommittee on May 3, 2017, Mr. John Katz was asked to list and provide the status of all pending hydropower proceedings where the Commission is waiting on another Federal or State agency to act of a Federal authorization. Mr. Katz responded by providing a table that shows the cases where the Commission staff has completed its environmental review and is currently waiting for an action to be completed by another agency before the Commission can issue a decision on the project. Of those 26 cases listed, 23 were relicense.

a. Please provide an updated list and describe the status pending proceedings.

Answer: Table 1 includes updated information regarding cases where FERC staff has completed its environmental review and is currently waiting for an action to be completed by another agency before the FERC can issue a decision on the project. Changes since the table was provided in May 2017 include the following:

- **R.C. Byrd Project (P-12796):** The Fish & Wildlife Service issued its Biological Opinion for the project on June 19, 2017, and the FERC subsequently issued the license on August 30, 2017.
- **Williams Project (P-2335):** The Maine Department of Environmental Protection issued its water quality certification for the project on June 20, 2017, and the FERC subsequently issued the new license on November 3, 2017.
- **Conowingo Project (P-405):** On April 27, 2018, the Maryland Department of the Environment issued a Water Quality Certification under Section 401 of the Clean Water Act. Endangered species consultation with the National Marine Fisheries Service concluded with the Service’s concurrence filing of May 9, 2018.
- **Poe Project (P-2107):** On December 29, 2017, the California State Water Resources Control Board issued a Water Quality Certification under Section 401 of the Clean Water Act for the project.
- **Packwood Lake Project (P-2244):** On March 22, 2018, the National Marine Fisheries Service issued its Biological Opinion for the project.

### Table 1: Cases Requiring Other Agency Action

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Project Name</th>
<th>State</th>
<th>FERC NEPA Completed</th>
<th>Time Since NEPA Completion (Years)</th>
<th>Authorization Type Needed</th>
<th>Federal / State Agency Responsible</th>
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<tbody>
<tr>
<td>2086</td>
<td>Vermilion Valley</td>
<td>CA</td>
<td>5/3/2004</td>
<td>14</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
</tr>
</tbody>
</table>
### Table 1: Cases Requiring Other Agency Action

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Project Name</th>
<th>State</th>
<th>FERC NEPA Completed</th>
<th>Time Since NEPA Completion (Years)</th>
<th>Authorization Type Needed</th>
<th>Federal/State Agency Responsible</th>
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<tbody>
<tr>
<td>2105</td>
<td>Upper N. Fork Feather</td>
<td>CA</td>
<td>11/10/2005</td>
<td>12.5</td>
<td>WQC</td>
<td>CA</td>
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<tr>
<td>2174</td>
<td>Portal</td>
<td>CA</td>
<td>4/27/2006</td>
<td>12.1</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
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<tr>
<td>11810</td>
<td>Augusta Canal</td>
<td>SC</td>
<td>9/22/2006</td>
<td>11.7</td>
<td>ESA</td>
<td>NMFS</td>
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<tr>
<td>1971</td>
<td>Hells Canyon</td>
<td>ID/OR</td>
<td>8/31/2007</td>
<td>10.8</td>
<td>ESA / WQC</td>
<td>NMFS and FWS / OR and ID</td>
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<tr>
<td>199</td>
<td>Santee Cooper</td>
<td>SC</td>
<td>10/26/2007</td>
<td>10.6</td>
<td>ESA</td>
<td>NMFS</td>
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<td>67</td>
<td>Big Creek</td>
<td>CA</td>
<td>3/13/2009</td>
<td>9.2</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
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<tr>
<td>120</td>
<td>Big Creek 3</td>
<td>CA</td>
<td>3/13/2009</td>
<td>9.2</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
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<tr>
<td>2085</td>
<td>Mammoth Pool</td>
<td>CA</td>
<td>3/13/2009</td>
<td>9.2</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
</tr>
<tr>
<td>2175</td>
<td>Big Creek 1 and 2</td>
<td>CA</td>
<td>3/13/2009</td>
<td>9.2</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
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<td>2088</td>
<td>South Feather</td>
<td>CA</td>
<td>6/4/2009</td>
<td>8.9</td>
<td>WQC</td>
<td>CA</td>
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<td>803</td>
<td>DeSabla Centerville</td>
<td>CA</td>
<td>7/24/2009</td>
<td>8.8</td>
<td>ESA</td>
<td>NMFS</td>
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<td>516</td>
<td>Saluda</td>
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<td>7/20/2010</td>
<td>7.8</td>
<td>ESA</td>
<td>NMFS</td>
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<tr>
<td>2106</td>
<td>McCloud-Pit</td>
<td>CA</td>
<td>2/25/2011</td>
<td>7.3</td>
<td>WQC</td>
<td>CA</td>
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<tr>
<td>2615</td>
<td>Brassua</td>
<td>ME</td>
<td>9/14/2011</td>
<td>6.7</td>
<td>WQC</td>
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<tr>
<td>2079</td>
<td>Mid-Fork American</td>
<td>CA</td>
<td>2/22/2013</td>
<td>5.3</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
</tr>
<tr>
<td>2266</td>
<td>Yuba Bear</td>
<td>CA</td>
<td>12/19/2014</td>
<td>3.4</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
</tr>
<tr>
<td>2310</td>
<td>Drum Spaulding</td>
<td>CA</td>
<td>12/19/2014</td>
<td>3.4</td>
<td>ESA / WQC</td>
<td>FWS / CA</td>
</tr>
<tr>
<td>2179</td>
<td>Merced</td>
<td>CA</td>
<td>12/4/2015</td>
<td>2.4</td>
<td>ESA / WQC</td>
<td>NMFS and FWS / CA</td>
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<tr>
<td>2467</td>
<td>Merced Falls</td>
<td>CA</td>
<td>12/4/2015</td>
<td>2.4</td>
<td>ESA / WQC</td>
<td>NMFS and FWS / CA</td>
</tr>
<tr>
<td>2337</td>
<td>Prospect No. 3</td>
<td>OR</td>
<td>4/16/18</td>
<td>0.08</td>
<td>WQC</td>
<td>OR</td>
</tr>
</tbody>
</table>
b. If there is no change in the status, please explain why and describe the steps taken by the Commission to resolve to the matter.

Answer: As described in the May 2017 response, the projects listed in this table fall into two categories: (1) waiting for either the National Marine Fisheries Service (NMFS) or U.S. Fish and Wildlife Service to complete consultation under section 7(a) of the Endangered Species Act (denoted as “ESA” in the table); and/or (2) waiting for a state water quality agency to issue water quality certification (“WQC” in the table) under section 401 of the Clean Water Act. FERC staff continues to consult and communicate with these agencies regarding their progress or information needs. Specific examples are discussed below.

- **Santee Cooper Augusta Canal, and Saluda Projects – South Carolina:** Commission staff periodically consults with NMFS on the status of the Biological Opinions for these projects and is routinely informed that the expected date for the Biological Opinions is being revised. During October 2017, NMFS requested additional information on dissolved oxygen, water temperature, and shortnose sturgeon in the Saluda Project. FERC staff directed the license applicant to provide the information, which it has done.

- **Brassua Project – Maine:** FERC staff issued letters to the Maine Department of Environmental Protection (DEP) in 2017 and 2018 to assess the status of the state agency’s review of the application for water quality certification, and whether there are any outstanding informational or procedural issues preventing Maine DEP from making a determination on the water quality certification. Maine DEP responded on May 9, 2018, indicating that it had a denial of the water quality certification for the project prepared, but instead intends to work with the applicant to provide it sufficient time to conduct a study during the upcoming field season and demonstrate that the aquatic life criteria are met in the project impoundment.

- **State of California Water Quality Certifications:** Pursuant to a Memorandum of Understanding between the FERC and the State of California, FERC staff meets semi-annually with the California State Water Resources Control Board to discuss the status of...
Questions for the Record Submitted to the Honorable Kevin McIntyre

the 401 certifications for pending projects. The last meeting was held on December 6, 2017, and the next meeting is scheduled for June 19, 2018.

**Question 2:** On August 15, 2017, President Trump signed Executive Order 13807, which established a One Federal Decision (OFD) policy for Federal review of major infrastructure projects, and set a goal for completing reviews and authorizations within two years. On April 9, 2018, Chairman McIntyre signed a memorandum of understanding (MOU) with 11 other agencies to implement the OFD policy.

- Please describe how the OFD policy and the MOU will improve FERC’s procedures for siting hydropower facilities, electric transmission, and pipelines.

**Answer:** The FERC has for many years worked closely with other federal agencies, as well as tribes, state, and local agencies, to complete reviews of all infrastructure projects in an expeditious, coordinated, and transparent fashion. I hope that the MOU, which calls for unified environmental reviews and federal agency decisions for major infrastructure projects, with the goal of completing action on all governmental approval decisions within two years, will encourage agencies to redouble their efforts to work in parallel and to eliminate unnecessary duplication of effort. In many cases, achievement of this goal requires the voluntary participation of state agencies that are not subject to the MOU.

**Question 3:** Congress provided FERC with authority under the Natural Gas Act to authorize the siting and construction of onshore and near-shore LNG export facilities. Once FERC has completed the review required under the National Environmental Policy Act, the Department of Energy begins a public interest review for the proposed export of the commodity. Given the sequential nature of these reviews, it is imperative that FERC’s review be conducted efficiently and expeditiously.

- Please list and describe the status of all pending LNG export applications before the Commission.

**Answer:** Attached is a table of all liquefied natural gas (LNG) export applications which currently have a pending status.

<table>
<thead>
<tr>
<th>Docket</th>
<th>Pending LNG Export Applications</th>
<th>Project Name</th>
<th>State</th>
<th>Application Filed/Amended</th>
</tr>
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4
<table>
<thead>
<tr>
<th>File Number</th>
<th>Project Name and Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP15-521-000</td>
<td>Gulf LNG Liquefaction Company, LLC; Gulf LNG Energy, LLC; Gulf LNG Pipeline, LLC; Gulf LNG Liquefaction, MS</td>
</tr>
<tr>
<td>CP15-550-000</td>
<td>Venture Global Calcasieu Pass, LLC; TransCameron Pipeline, LLC</td>
</tr>
<tr>
<td>CP16-116-000</td>
<td>Texas LNG Brownsville, LLC</td>
</tr>
<tr>
<td>CP16-454-000</td>
<td>Rio Grande LNG, LLC; Rio Bravo Pipeline Company, LLC; Rio Grande LNG, Rio Bravo Pipeline, TX</td>
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<tr>
<td>CP16-480-000</td>
<td>Annova LNG Common Infrastructure, LLC; Annova LNG Brownsville A, B, and C, LLC</td>
</tr>
<tr>
<td>CP17-20-000</td>
<td>Port Arthur LNG, LLC &amp; PALNG Common Facilities Company, LLC; Port Arthur Pipeline, LLC; Port Arthur LNG Export and Pipeline, TX, LA</td>
</tr>
<tr>
<td>CP17-41-000</td>
<td>Eagle LNG Partners Jacksonville, LLC</td>
</tr>
<tr>
<td>CP17-66-000</td>
<td>Venture Global Plaquemines LNG, LLC; Venture Global Gator Express, LLC</td>
</tr>
<tr>
<td>CP17-117-000</td>
<td>Driftwood LNG LLC, Driftwood Pipeline LLC</td>
</tr>
<tr>
<td>CP17-178-000</td>
<td>Alaska Gasline Development Corporation</td>
</tr>
</tbody>
</table>
b. Please list the number of full-time equivalent staff responsible for processing LNG export applications.

Answer: Staff from a number of different FERC program offices – the Office of the General Counsel, the Office of Energy Market Regulation, the Office of Enforcement, and the Office of Energy Projects – work on LNG export proposals and their companion interstate pipeline supply line proposals. The Office of Energy Projects contains a staff of 76 geologists, biologists, archaeologists, engineers, and other technical experts who are primarily responsible for analysis of all natural gas infrastructure proposals, including LNG projects. Of this staff, there are 14 engineers specifically charged with performing engineering and safety review of LNG facility designs and conducting both construction and operational inspections. The number of staff working on LNG export proposals at any one time is dependent on the nature and complexity of the various proposals under consideration and the number of other gas infrastructure proposals before the FERC.

c. Please describe any steps already taken or planned to improve efficiency and expedite the processing of LNG export applications.

Answer: The Office of Energy Projects has recently increased use of contractors to complete the construction compliance inspections for approved export LNG projects, has increased hiring efforts for engineers with LNG expertise, is actively exploring direct and third party contractor options, and is implementing procedural adjustments to improve processing timelines for pending LNG export applications. I also note that on April 19, 2018 the FERC issued a Notice of Inquiry (NOI) initiating the FERC’s review of its 1999 policy statement on the certification of new natural gas transportation facilities. Among other things, the NOI seeks comments on how the FERC might improve the efficiency of its review of applications for natural gas infrastructure. Comments in response to that NOI are due to the FERC on June 25, 2018.

Question 4: Is Congressional intent undermined when a state can exercise its section 401 water quality certification authority to block construction of new pipeline capacity, regardless of any inconsistency with state water quality standards?

Answer: In the Natural Gas Act (NGA), Congress declared that the business of transporting and selling natural gas for ultimate distribution to the public was affected by the public interest and that federal regulation of these matters was necessary. Congress also provided in the Clean Water Act...
Question 5: Do you have any advice or recommendation to Congress as to what can be done to reinforce and strengthen the FERC’s role in administering a comprehensive Federal scheme of regulation of interstate pipeline development?

Answer: Under state agency practices currently in effect, the one-year time period for a decision under the CWA may be restarted through the withdrawal and refiling of a water quality certification application. Congress may wish to consider whether this practice should be permissible.

Question 6: FERC has long held that it “does not pick winners or losers” regarding the fuels for generating electricity -- rather FERC’s role is to promote competition through market mechanisms.

   a. How does this philosophy square with the fact that some generators have characteristics or attributes (e.g., onsite fuel) that allow them to provide additional value in terms or reliability or resilience?

Answer: The FERC has long regarded competitive markets as the appropriate mechanism for compensating resources for the services they provide to the electric grid and has aimed to do so independent of resource class. However, because different resources provide different services to the market, not all resource classes receive identical market revenues. Instead, the FERC seeks to ensure that the market is able to compensate resources for the specific value they provide without improperly favoring one resource type over another. In our ongoing proceeding, Grid Resilience in Regional Transmission Organizations and Independent System Operators (Docket No. AD18-7), the FERC seeks to identify areas of resilience risk, understand how that risk is assessed, identify the resilience attributes and services that are needed to maintain and improve resilience, and consider associated issues regarding compensation for such attributes and services.

Question 7: As you know, a request has been made to DOE for an emergency order to aid certain nuclear and coal-fired plants in PJM.

   a. From your perspective, what tools does FERC have to ensure that struggling nuclear and coal-fired plants can be compensated at a level where they can continue to operate?

Answer: As you note above, the FERC does not pick winners and losers in its markets. Rather, the FERC focuses on approving market rules designed to identify needed services and compensate resources for the specific services they provide without improperly favoring one resource type over
Question 8: Under section 205 of the Federal Power Act, FERC is prohibited from making modifications to tariff proposals that are substantial enough to transform them into entirely new proposals. Last summer, the DC Circuit issued a ruling in NRG v. FERC that FERC had contravened this limitation on its authority when proposing changes to PJM’s filing to change its rate structure. This undermines FERC’s longstanding practice of approving filings subject to certain changes being made, rather than rejecting filings with questionable aspects altogether.

a. Can you describe if this ruling has adversely affected the way FERC reaches a determination?
b. Is the public interest harmed by this ruling?
c. Is a legislative fix necessary to clarify Section 205 of the FPA?

Answer: I do not believe the decision has adversely affected the way the FERC reaches a determination. As clarified by the court, section 205 of the Federal Power Act (FPA) gives the FERC certain authority to attach conditions to its approval of section 205 filings, and the FERC is working within those requirements. In addition, when appropriate, the FERC may exercise its authority under section 206 of the FPA to direct changes to the existing rates, terms and conditions of service of public utilities. I have not concluded that a legislative fix to clarify section 205 of the FPA is warranted at this time.

Question 9: FERC does not have the authority to mandate that a certain amount of power be generated by resources. In response to various legislative efforts to support nuclear generation, the industry is debating whether individual state actions are harming the efficient operation of the organized wholesale electricity markets. States including New York and Illinois have enacted or legislation that would protect “at-risk” nuclear generation units from closure due to their inability to compete economically in a competitive market.

a. Litigation is currently underway in the U.S. Court of Appeals (2nd & 7th Circuits regarding the lawfulness of these subsidies. Will FERC assist the Court in providing its views (as requested by the Court)?
b. Do you or FERC have a position the appropriateness of these credits?
Answer: The U.S. Court of Appeals for the Seventh Circuit has invited the United States to file a brief in litigation with respect to the Constitutionality of the Illinois Zero Emissions Credits (ZECs) program. In light of the court’s invitation, FERC staff is working with the Department of Justice, which plans to field the requested brief. In addition, matters currently pending before the FERC present the separate question of whether the Illinois ZECs program affects wholesale rates in FERC-jurisdictional markets in a manner that warrants FERC action. As the FERC is carefully considering that issue, expressing a view as to the appropriateness of ZECs at this time could prejudge that pending matter and thus would be inappropriate at this time.

Question 10: In 2014 FERC began to examine the issue of how non-market actions, events, and circumstances can influence wholesale electricity prices. Since then, FERC has initiated numerous “price formation” rulemakings on various topics. Several years have now passed and some have said that FERC is addressing “price formation” issues too slowly.

a. What is the status of these efforts and how do you see them relating to other market issues like grid resilience.

Answer: The FERC initially identified various issues that potentially warrant FERC action under the broad umbrella of “price formation.” Since originally prioritizing action on issues that the FERC deemed the most ripe, we have taken a number of concrete actions. Since 2014, the FERC has issued 30 orders as part of the price formation initiative. Most recently, in April 2018, the FERC issued a final rule on transparency (Order No. 844). The transparency rule marked the last generic action among the initial set of price formation topics the FERC identified when the price formation inquiry began. Although the FERC has initiated several reforms, the results of some reforms are not yet apparent because the RTOs/ISOs are now working on implementation.

The price formation rules and orders help more accurately price system needs and make them more transparent, improve market participants’ incentive to operate as dispatched, invest appropriately, and maintain reliability. All of these outcomes help address the operational challenges RTOs/ISOs face in supporting reliable operations, and may help inform further conversations on how to foster resilience.

Question 11: In July 2011, FERC issued Order 1000 – a landmark rule designed to increase regional transmission development by non-incumbent utilities and foster competition for innovative and cost-effective projects. However, after more than 6 years, few new transmission projects can be directly attributed to Order No. 1000 and a recent FERC staff report admitted that “[i]t is difficult to assess whether the industry is investing in sufficient transmission infrastructure to meet the nation’s needs and whether the investments made are more efficient or cost-effective.”

a. What are the Commissions views on this rule? Should it be reexamined?
Answer: Issued in 2011, Order No. 1000 significantly changed the process through which transmission facilities intended to address our nation’s electric transmission needs are planned. Many in the industry expected Order No. 1000 to boost competitive investment in new transmission infrastructure, but I recognize that there is concern among some in the industry that such investment is not occurring at the levels anticipated. Driven at least in part by this concern, the FERC has continued to examine the implementation of Order No. 1000, its effect on regional and interregional transmission development, and related transmission development issues. In June 2016, the FERC convened a technical conference to discuss the state of competitive transmission development and requested comments on several associated issues. I expect that the record developed through that proceeding and other currently pending dockets will provide helpful information on potential FERC action to address these issues.

Question 12: FERC has struggled (since 2011) to come up with a methodology to calculate a legally-sustainable Return on Equity (ROE) for existing electric transmission infrastructure. Transmission owners argue that ROEs are set too low, and end-users argue that ROEs are excessive. In 2014, FERC developed a methodology (in Opinion No. 531) that made nobody happy and FERC’s decision was appealed to the D.C. Circuit. As you know, that FERC policy was vacated by the Court in 2017, finding that FERC failed to engage in reasoned decision-making in crafting its ROE methodology.

a. Lacking a clear and stable ratemaking policy, transmission owners, developers, and financiers are concerned with the outlook of new transmission infrastructure projects. What is FERC doing with respect to Transmission ROEs?

Answer: I agree that the FERC must have a clear and stable policy for establishing transmission ROEs in order to, among other reasons, provide investor certainty such that developers can access the capital markets on reasonable terms for such long-lived infrastructure. Because the D.C. Circuit vacated the revised ROE methodology that the FERC implemented in Opinion No. 531, we are working on developing a way to meet these policy objectives that is consistent with the court’s decision.

b. How much longer does FERC expect it will need to resolve this issue?

Answer: As you know, this issue is pending before the FERC in multiple proceedings, including the remand and vacatur of Opinion No. 531. Thus, I am not able to comment on the nature or timing of the FERC’s action on the pending proceedings. I assure you we are now evaluating the records in these proceedings and will act upon them in due course.

Question 13: In light of the recent tax reform legislation, what is FERC doing to ensure that pipeline customers will realize the benefits associated with a lower corporate tax rate for the pipeline?
Answer: The FERC, on March 15, 2018, initiated a rulemaking proceeding in Docket No. RM18-11-001, Interstate and Intrastate Natural Gas Pipelines: Rate Changes Relating to Federal Income Tax Rate, wherein the FERC proposed a process that will allow it to determine which jurisdictional natural gas pipelines may be collecting unjust and unreasonable rates in light of the recent reduction in the corporate income tax rate in the Tax Cuts and Jobs Act of 2017 and changes to the FERC’s income tax allowance policies following the United Airlines, Inc. v. FERC decision. Specifically, the FERC proposed to create a one-time financial report to be filed by all 133 interstate natural gas pipelines with cost-based rates, and proposed four options for each pipeline to voluntarily make a filing to address the changes to its recovery of tax costs or explain why no action is needed. After evaluating the results of these financial reports, the FERC may initiate an NGA section 5 proceeding to determine whether individual pipeline rates may no longer be just and reasonable, and establish just and reasonable rates on a prospective basis. Further, the FERC proposed an alternative NGA section 4 tariff filing method, should pipelines decide to select this option, that would expedite rate reductions. The FERC also proposed separate procedures for certain intrastate natural gas pipelines with cost-based rates. The FERC is currently evaluating numerous comments filed in response to the proposed rulemaking.

Also on March 15, 2018, the FERC initiated two investigations pursuant to NGA section 5 to determine whether the rates currently charged by Dominion Energy Overthrust Pipeline LLC and Midwestern Gas Transmission Company are just and reasonable. The FERC is also examining this issue as part of its review of pending filings under NGA section 4 and NGA section 7 where interstate natural gas pipeline companies are proposing new or revised jurisdictional rates. Finally, the FERC also has the authority to audit specific pipelines to ensure that they are complying with the policies and directives of the FERC.

Question 14: Each of the RTOs/ISOs employ a market monitor to oversee the activities of the markets, but each of them has a different structure. Some RTOs contract with an independent entity to serve this role (e.g., PJM and MISO), while others rely on an internal monitor (e.g., Southwest Power Pool and CAISO) and others have both an internal monitor and an external independent monitor (e.g., ISO-New England and New York ISO).

a. After 20 years of experience with market monitors in the organized markets, there remains a good deal of confusion regarding the role of the monitors, which type of monitoring structure works best, and who the market monitor is ultimately responsible to.

i. What are your thoughts on the role of the market monitor? Are any changes necessary?

Answer: Certain aspects of the market monitor’s role are currently pending before the FERC. Because these proceedings are pending, I am limited in my ability to discuss my thoughts regarding...
the market monitor’s role and whether any changes are necessary to the role of the market monitors in RTOs/ISOs.

However, in creating the role for market monitors in 2005, the FERC recognized that market monitors “monitor organized wholesale markets to identify ineffective market rules and tariff provisions, identify potential anticompetitive behavior by market participants, and provide the comprehensive market analysis critical for informed policy decision making.” Further, in Order No. 719 the FERC determined that a market monitor has three core functions: (1) evaluating the effectiveness of existing and proposed market rules, tariff provisions, and market design elements and recommending proposed changes “not only to the RTO or ISO, but also to the FERC’s Office of Energy Market Regulation staff and to other interested entities such as state commissions and market participants”; (2) reviewing and reporting on market performance; and (3) referring the suspected wrongdoing of market participants, RTOs/ISOs to the FERC’s Office of Enforcement.

**Question 15:** We’ve heard about benefits and drawbacks of financial trading in the RTO and ISO markets, including the use of “FTRs” and virtual bidding. The market monitors in PJM (Dr. Bowring) and CAISO (Dr. Hildebrandt) have raised some serious concerns regarding the auctioning of FTRs in their markets. For instance, in California, Dr. Hildebrandt alleged in a recent hearing that ratepayers are paying $400 million for FTRs due to market design flaws.

a. Is FERC looking into whether there is sufficient revenue adequacy in the various RTOs to fund the FTRs?

**Answer:** The FERC is aware of the concerns raised by the PJM and CAISO market monitors regarding FTR/Congestion Revenue Right (CRR) markets.

b. How can we address the persistent shortfalls in FTR funding?

**Answer:** Due to currently pending proceedings, I am unable to comment on this question at this time.

**Question 16:** It’s my understanding that DOE has offered an open invitation for FERC Commissioners to receive intelligence briefings on cyber-related threats.

a. How many of you have taken DOE up on this offer?

**Answer:** All of the Commissioners either have received their intelligence briefings from the Department of Energy (DOE) or have upcoming briefings currently being processed.

b. In this open setting, how much can you say regarding how prepared are the nation’s utilities to fend off a cyber or physical attack?
Answer: Although I cannot provide specifics on how well prepared the nation’s various utilities are, I can provide you with the following information on steps the FERC has taken over the past several years to help utilities prepare for cyber or physical attacks on the bulk power system. Of course, assuring preparedness requires ongoing vigilance.

The FERC uses a combination of mandatory reliability standards, promotion of voluntary best practices, and information and intelligence-sharing to address cyber and physical security. The FERC has authority under the FPA to review and approve mandatory reliability standards for the bulk power system that are proposed by the North American Electric Reliability Corporation (NERC). That authority includes authority over standards that address cybersecurity. The Critical Infrastructure Protection (CIP) Reliability Standards address cyber and physical security and have been continually updated since 2008, when the FERC approved NERC’s initial set of proposed CIP Reliability Standards. The current version of the CIP standards requires asset owners to identify assets that are essential to reliable operation of the grid and to protect them behind an “electronic security perimeter,” which insulates them from the most common cyberattacks that target email and corporate networks. Utilities that comply with the CIP standards are also required to limit physical access to critical systems, to address risks associated with malware, and to keep cyber systems updated. A physical security standard requires entities to identify and protect substations critical to the reliable operation of the grid.

The FERC also supports grid cybersecurity through voluntary and collaborative efforts. FERC staff has worked with the DOE, the Department of Homeland Security (DHS), the Federal Bureau of Investigations, and others to help support key cybersecurity initiatives. The FERC works closely with these agencies, state partners, and industry to identify key energy facilities, provide cybersecurity threat briefings, and assist with the development and identification of best practices for cybersecurity risk mitigation. This work has included coordinating with federal partners to provide information sessions (including classified briefings) on threats to asset owners and operators; actively participating in National Institute of Standards and Technology working groups developing the Cybersecurity Framework; and assisting DHS in identifying critical energy infrastructure.

c. Does FERC require additional statutory authority to ensure that the security of our nation’s energy delivery infrastructure is protected?

Answer: I do not believe we need additional authority at this time.

Question 17: As you know, recent wildfires in California and the Western U.S. have resulted in the loss of life and billions of dollars in damages to affected communities. Electric utilities in this region have also been impacted by both the wildfires and state law that may impede their ability to recover the costs associated with the repair and restoration of damaged transmission infrastructure. What is FERC doing to ensure that these utilities remain viable
and resilient, and does FERC have policies to ensure that utilities with affected (FERC-jurisdictional) transmission assets can recover wildfire-related expenses?

**Answer:** The FERC’s transmission ratemaking mechanisms provide the opportunity for utilities to recover prudently incurred costs for restoration and repairs, less any recoveries already provided by insurance policies, in their transmission rates charged to customers. Generally, the FERC presumes that a utility’s expenditures are prudent in the absence of a challenge casting doubt on such prudence. I note that in 2014, San Diego Gas & Electric Company recovered $23.3 million in wildfire costs through FERC-jurisdictional transmission rates.

The Honorable John Shimkus

**Question 1:** Section 217(b)(4) of the Federal Power Act directs FERC to exercise its authority to facilitate the planning and expansion of the transmission grid to meet the reasonable needs of load-serving entities, and enable utilities with an obligation to serve to secure firm transmission rights for their long term power supply arrangements. In your opinion, what is the extent of FERC’s obligation to ensure that Congress’ directive with regard to firm transmission rights for long-term power supply arrangements is met?

**Answer:** The FERC has taken steps to comply with section 217(b)(4) of the Federal Power Act (FPA). In 2006, the FERC issued Order No. 681, in which the FERC amended its regulations under the FPA to require transmission organizations that are public utilities with organized electricity markets to make available long-term firm transmission rights that satisfy certain guidelines. I note that the D.C. Circuit has held that section 217(b)(4) does not create a general preference for load-serving entities in all contexts and that the section would be violated only if the FERC were to exercise its authority in a manner that is at odds with the needs of load-serving entities. The FERC will continue to exercise its authority under section 217(b)(4) consistent with that reading of the FPA.

Ownership of Transmission Assets:

**Question 2:** The Commission has, on several occasions, expressed strong support for joint ownership of transmission, noting that it has proven to be a model that gets transmission built quickly, efficiently and at low cost. In its November 15, 2012 Policy Statement on transmission incentives, the Commission “encourage[d] incentives applicants to participate in joint ownership arrangements and agrees … that such arrangements can be beneficial by diversifying financial risk across multiple owners and minimizing siting risks included,” but this statement has not spurred additional joint ownership arrangements. If it can be established that the joint ownership model of transmission ownership results in a more robust
grid, should the Commission do more to actively promote joint ownership arrangements involving public power entities? Why or why not?

Answer: I believe that there can be benefits to joint ownership of transmission facilities, particularly large backbone facilities, in terms of both increasing opportunities for investment in the transmission grid and ensuring nondiscriminatory access to the transmission grid for transmission customers. However, I also believe that whether a transmission owner wants to jointly own its facility with another entity is a business decision for each owner to make. I am open to exploring further the issue of joint ownership with my colleagues.

The Honorable H. Morgan Griffith

As I mentioned in my oral questions, I have heard from multiple homeowners and small business owners—many of whom are members of the “Friends of Claytor Lake”—who have concerns with FERC’s licensing process of non-federal hydropower projects. These Virginians are worried about the negative impact Shoreline Management Plans (SMPs) have on privately-owned structures and property values. Please submit answers to the following questions regarding SMPs impacts on local property owners.

Question 1: If a county has zoned a specific project—in this case a lake—in the past, and the project is located solely within the one county, does FERC have objections to the county writing the zoning ordinance in partnership with the licensee and FERC? If so, please elaborate and cite authority for such objections.

Answer: Congress has required the FERC to ensure that hydropower licenses it issues are consistent with a comprehensive plan for improving or developing affected waterways, and the FERC must carry out this mandate. However, the FERC strongly encourages the settlement of cases before it, so that, if a licensee, a county, and other stakeholders can reach agreement on land use issues, the FERC has the authority to review and approve such an agreement.

a. Does FERC have a process in place to ensure that SMP regulations are not duplicative and/or burdensome for a locality that already has comprehensive zoning and building ordinances?

Answer: Yes. The FERC requires that licensees develop Shoreline Management Plans through a public process that involves consultation with affected entities, including local entities. Further, any stakeholder may raise with the FERC any issues it has with a proposed plan, and may intervene in the proceeding, thus obtaining the right to seek judicial review of FERC orders approving these plans.
Question 2: What is FERC’s view of the role of state agencies – such as the Virginia Department of Game and Inland Fisheries, the Virginia Department of Conservation and Recreation, and the Virginia Department of Environmental Quality – in overseeing management of environmental and recreational resources?

Answer: Although the FERC must carry out Congress’ requirement that the FERC ensure appropriate treatment of environmental and recreational resources affected by licensed hydropower projects, the FERC is respectful of the role of state agencies regarding these resources. The FERC requires that notice of hydropower proceeding be provided to state agencies and that licensees consult with them. State water quality certifying agencies have the authority to impose license conditions under section 401 of the Clean Water Act, and state agencies can propose fish and wildlife conditions under section 10(j) of the Federal Power Act (FPA), which the FERC must accept unless it explains why they are inconsistent with law. State agencies also may propose license conditions under FPA section 10(a). Finally, it is common practice for the FERC to require licensees to consult with state resource agencies on an ongoing basis during the term of a license.

a. Does FERC have an inter-governmental process to avoid duplication and conflict in areas where jurisdictions overlap?

Answer: The FERC regularly consults with other agencies whose authorities overlap those of the FERC. In the course of individual proceedings, the FERC provides notice to, and seeks comments from, such agencies. In addition, the FERC has, in its regulations, more formal processes, such as meetings with agencies where they propose conditions under FPA section 10(j) that the FERC believes may conflict with law.

Question 3: Are project licensees allowed to require inspections and permits for new owners of shoreline structures upon sale of property when no changes are planned to existing structures?

Answer: To the extent that structures are located on lands that licensees own in fee or to which they have other property interests, licensees may exercise whatever legal rights they have, as established by property instruments and interpreted by the courts. Although the FERC requires licensees to comply with the terms of their licenses, it has no other involvement in the relationship between licensees and private parties.

Question 4: Are project licensees allowed to require modification or removal of grandfathered structures that do not conform to new and current requirements?

Answer: Structures located on licensee-owned lands or lands to which a licensee has property rights are subject to whatever legal rights the licensee has to require modification or removal of those structures. The nature and extent of a licensee’s property rights are matters outside the FERC’s jurisdiction. Issues with property rights must be resolved by the courts.
Question 5: Are project licensees allowed to impose standards that impact property outside the project boundary?

Answer: The FERC has jurisdiction only over lands and waters that are part of a licensed project, which generally are limited by the project boundary. To the extent that licensees hold rights to lands that are not part of a project, the FERC has no jurisdiction over the licensee’s exercise of those rights.

The Honorable Bill Johnson

Question 1: Congress provided FERC with authority under the Natural Gas Act to authorize the siting and construction of onshore and near-shore LNG export facilities. Once FERC has completed the review required under the National Environmental Policy Act, the Department of Energy begins a public interest review for the proposed export of the commodity. Given the sequential nature of these reviews, it is imperative that FERC’s review be conducted efficiently and expeditiously.

a. Please list and describe the status of all pending LNG export applications before the Commission.

Answer: Attached is a table of all liquefied natural gas (LNG) export applications which currently have a pending status.

<table>
<thead>
<tr>
<th>Docket</th>
<th>Company</th>
<th>Project Name</th>
<th>State</th>
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<td>CP15-521-000</td>
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<td>Gulf LNG Pipeline, LLC</td>
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<td>Company Name and Project Details</td>
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<td>Jordan Cove LNG Terminal Pacific Connector</td>
<td>OR</td>
<td>9/21/2017</td>
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</tbody>
</table>

b. Please list the number of full-time equivalent staff responsible for processing LNG export applications.

**Answer**: Staff from a number of different FERC program offices – the Office of the General Counsel, the Office of Energy Market Regulation, the Office of Enforcement, and the Office of...
Energy Projects – work on LNG export proposals and their companion interstate pipeline supply line proposals. The Office of Energy Projects contains a staff of 76 geologists, biologists, archaeologists, engineers, and other technical experts who are primarily responsible for analysis of all natural gas infrastructure proposals, including LNG projects. Of this staff, there are 14 engineers specifically charged with performing engineering and safety review of LNG facility designs and conducting both construction and operational inspections. The number of staff working on LNG export proposals at any one time is dependent on the nature and complexity of the various proposals under consideration and the number of other gas infrastructure proposals before the FERC.

c. Please describe any steps already taken or planned to improve efficiency and expedite the processing of LNG export applications.

Answer: The Office of Energy Projects has recently increased use of contractors to complete the construction compliance inspections for approved export LNG projects, has increased hiring efforts for engineers with LNG expertise, is actively exploring direct and third party contractor options, and is implementing procedural adjustments to improve processing timelines for pending LNG export applications. I also note that on April 19, 2018 the FERC issued a Notice of Inquiry (NOI) initiating the FERC’s review of its 1999 policy statement on the certification of new natural gas transportation facilities. Among other things, the NOI seeks comments on how the FERC might improve the efficiency of its review of applications for natural gas infrastructure. Comments on that NOI are due to the FERC on June 25, 2018.

The Honorable Billy Long

Question 1: On March 23rd, it was revealed that Iranian hackers attempted to breach FERC’s computer systems. Although the extent of the breach has not been revealed publicly, I am deeply concerned that the sensitive details of our critical infrastructure could have fallen into the hands of malicious actors.

a. In this unclassified setting, what can you tell us about this breach?

Answer: In August of 2017, the FERC was notified by the Federal Bureau of Investigation that six employee email accounts were compromised and that the emails received by the individuals were copied utilizing an Outlook rule and forwarded to an unauthorized source. The compromise was a result of a “password spray” attack conducted on the FERC’s cloud based email system sometime between November 2016 and August 2017. The FERC took immediate action, initiating incident response capabilities to mitigate the vulnerability of the email accounts, and notified the appropriate authorities as required by federal mandates. The FERC is conducting an investigation of the impacted email accounts and at this time has no evidence that anyone accessed data that would pose a significant threat to the grid infrastructure. The FERC continues to work with external authorities...
b. What steps are being taken to prevent this from happening again?

Answer: Upon notification of the compromise, the FERC took the following steps to mitigate the vulnerability of the impacted employee email accounts:

- Enforced enterprise password resets to all FERC email accounts;
- Removed malicious Outlook forwarding rule within the six email accounts;
- Globally disabled users' ability to auto forward emails to a non “@ferc.gov” email address;
- Updated IT Service Desk procedures for password resets by specifically implementing a password generator for temporary passwords; and
- Retrained IT Service Desk staff on policy and procedures for password resets.

Additionally, during the time of the breach, the FERC was in the process of implementing a multifactor authentication solution for employee access to its cloud based email system. The solution has been deployed (completed), and the FERC is actively monitoring enforcement of multifactor authentication use to its remote cloud based email system to prevent this from happening again.

Question 2: Recently, City Utilities of Springfield, Missouri, has seen a substantial rise in its transmission costs in the Southwest Power Pool (SPP). Most of the costs are related to funding transmission projects outside of Missouri. Some of the projects allow utilities to access renewable energy located outside the state, however, the benefits are outweighed by the rise of transmission costs for projects located far away. SPP’s own studies have shown that City Utilities’ transmission costs and energy prices are substantially higher than any other customer in the SPP.

a. Will FERC address the concern that some customers like those in the City of Springfield, are paying for assets from which they receive no benefit?

Answer: I understand that SPP is working with its stakeholders on a proposal to address the concerns you have identified, and I encourage SPP to continue to work with its stakeholders on this issue. The FERC will address any proposal filed by SPP on this matter.

b. How can RTO policies that result in transmission costs to consumers that are not commensurate with the benefits be deemed just and reasonable under the Federal Power Act?
Answer: The FERC has required public utility transmission providers to participate in regional transmission planning processes that are designed to identify and facilitate development of more efficient or cost-effective electric transmission facilities. To address a longstanding obstacle to the development of such facilities, the FERC also has required that regional transmission planning processes include a method to allocate the costs of those facilities in a manner that is at least roughly commensurate with their benefits. Implementing those requirements, the FERC has accepted a variety of cost allocation methods, which reflect the considerable flexibility that the FERC gave individual regions to determine what benefits should be considered and how those benefits should be calculated. When a party contends that the approach adopted in its region is resulting in an allocation of costs that no longer satisfies the FERC’s standards, the FERC will examine that contention.

The Honorable Richard Hudson

Question 1: As you know, my bill H.R. 2786, will expedite the approval process for small conduit hydropower projects. This bill passed the House by an overwhelming vote of 420-2, and there seems to be support for it in the Senate. You have also previously indicated that FERC would be supportive of streamlining the permitting process for these types of projects.

a. Will you commit to working with the Committee to see this bill signed into law?

Answer: My staff and I will be happy to provide Congress whatever technical assistance it may require in drafting and considering H.R. 2786.

Question 2: As you know, FERC is litigating a number of enforcement cases in federal district court and several of these cases involve virtual trading in the electricity markets. While some suggest that virtual trading allows utilities to hedge against price volatility and congestion, others have argued that virtual transactions are not being used as intended, resulting in profits to traders without adding any commensurate benefit and a decline in the performance of the markets.

a. Since there is a track-record of market manipulation involving virtual products, does FERC have any plans to review its existing policies regarding virtual trading in RTO markets?

Answer: The FERC is currently considering existing policies related to virtual transactions in several pending proceedings and, therefore, I do not want to prejudge those issues. More generally, the FERC continually monitors the functioning and efficiency of its markets, and seeks to identify opportunities for improvement.
Questions for the Record Submitted to the Honorable Kevin McIntyre

b. What further steps can FERC take to prevent market manipulation through virtual trading?

Answer: The FERC’s Office of Enforcement runs a market surveillance program which includes, among other things, monitoring all virtual trading in the RTO/ISO markets and identifying potentially manipulative behavior. The FERC’s regulations require each jurisdictional RTO/ISO to electronically deliver to the FERC, on an ongoing basis, data related to the markets the RTOs/ISOs administer, including market data related to price formation such as virtual bids, offers, and cleared transactions. The Office of Enforcement’s Division of Analytics and Surveillance uses these data to run algorithmic screens for all virtual transactions. Analysts review all of the screen results to determine if there is suspicious virtual trading activity and further inquiry is needed. In addition, analysts review data on both physical and financial positions that could benefit from improper virtual trading. The Office of Enforcement regularly communicates to industry participants how it surveilles virtual trading and provides high-level descriptions of conduct that may trigger a surveillance alert for potentially manipulative activity. The Office of Enforcement’s robust surveillance program and industry outreach has been effective in identifying potential manipulation that involves virtual trading, increasing compliance, and deterring such manipulative activity.

The Honorable Tim Walberg

Question 1: Chairman McIntyre, at the NARUC annual conference in February, press reports indicated that you expressed your desire to update the regulations implementing PURPA. One issue that has not gotten much attention but that I hope you will look at is the impact that FERC’s implementing regulations are having on natural gas powered, all-electric fuel cells. FERC’s regulatory definition of a cogeneration facility requires that to qualify as a QF, a cogeneration facility must produce electric energy and thermal energy for an industrial purpose. The underlying statute only requires that a cogeneration facility produce electric energy and other forms of useful energy. This more stringent regulatory definition has had the effect of denying natural gas powered all electric fuel cells QF status and creating an uneven playing field in the market. The last time Congress opined on PURPA in the 2005 Energy Policy Act Congress specifically directed FERC to update PURPA regulations to ensure “continuing progress in the development of efficient electric energy generating technology.” Natural gas powered fuel cells were not commercially available in 2005. However, the technology is now commercial, economical and can achieve efficiencies as high as 65%, exceeding the efficiency requirements under PURPA regulations. However, because of the overly restrictive regulatory definition of a cogeneration facility, FERC’s regulations are having the opposite effect of what Congress intended under the Energy Policy Act of 2005.

So my question to you, Chairman McIntyre, is will you commit to looking at the treatment of natural gas powered, all electric fuel cells under PURPA regulations? Specifically, will you
examine whether something short of a full-blown rule making can address this small but important issue?

**Answer:** The FERC previously initiated a review of its PURPA policies, and at the FERC’s May 17, 2018 open meeting I announced that I have directed FERC staff to return to that effort. I anticipate that we will allow for additional public comment on these types of issues in the context of that review. However, I note that under PURPA, a “cogeneration facility” is defined as “a facility which produces (i) electric energy, and (ii) steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes.” 16 U.S.C. § 793(18)(A) (2012). Altering the definition may ultimately be a matter for Congress rather than the FERC.

**Question 2:** In 1983, the Supreme Court stated that FERC had “prescribe[d] the maximum rate authorized by PURPA,” in part because it was just getting familiar with the new statute, and noting that customers would not significantly benefit from lower rates because there was a need, at that time, to incentivize new small power production facilities. Now, renewable portfolio standards and customer preferences have driven high rates of renewable facilities, and according to the NRDC, since 2008, costs have fallen dramatically: residential solar PV has fallen by 55%; utility scale solar PV has declined by 71%; wind costs have fallen by 75%.

a. Given the changes in the renewable landscape, what can FERC do to ensure that energy customers are not paying a premium for FERC’s 40 year old regulations implementing PURPA? Certain states in organized markets have sought to implement market pricing for QFs, but those programs were struck down by federal courts because they ran afoul of FERC’s regulations on pricing. How does FERC intend to address that challenge? How can FERC implement market pricing for qualifying facilities to ensure that customers do not pay more for renewable energy under PURPA?

**Answer:** While the FERC’s regulations identify factors that should be considered in establishing such rates, the FERC does not itself establish the rates that qualifying facilities receive. Rather, that responsibility lies with states. In fact, PURPA provides that no rate adopted by the FERC “shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy,” and PURPA defines that incremental cost as “the cost to the electric utility of the electric energy which, but for the purchase from the cogenerator or small power producer, such utility would generate or purchase from another source.”

When establishing the rates a qualifying facility should receive, the states have considerable discretion. While there are factors in the FERC’s regulations that the states are to consider, these factors provide states the ability to ensure that ratepayers are ultimately charged rates that reflect cost-effective procurement of electric energy.
Finally, as noted above, at our May 17, 2018 open meeting I announced that I have directed FERC staff to return to the PURPA review initiated a few years ago. Thus, the FERC is considering potential next steps regarding implementation issues under PURPA.

b. Ironically, FERC has stated that it will examine the 1999 Certificate Policy Statement because 1999 was a long time ago. How does FERC intend to review its PURPA regulations from 1980?

**Answer:** See my response to your question 2(a).

**The Honorable Scott Peters**

**Question 1:** As a Californian and more importantly, a San Diegan, you might guess that I'm particularly concerned with the connection between wildfires and electric grids, through issues like vegetation management, power management, and inverse condemnation, to name a few.

Recently, Governor Brown announced a need to focus on modernizing vegetation management practices, ensuring utility and public infrastructure maximizes resilience to extreme weather events and natural disasters, and updating liability rules and regulations for utility services in light of changing climate and the increased severity and frequency of weather events.

Chairman McIntyre, do you agree with the governor and if so, how do you believe we should move forward?

**Answer:** The FERC has certified the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization. NERC develops and enforces reliability standards for the bulk power system, subject to approval by the FERC, including current standard FAC-003-4, Transmission Vegetation Management. This standard requires entities to manage vegetation to prevent outages caused by vegetation through maintaining clearances between transmission lines and vegetation on and along transmission rights-of-way. The standard generally applies to all transmission lines operated at or above 200 kV and any lower voltage lines determined to be important to the reliability of the bulk power system.

However, the standard neither advocates for nor discourages any particular method as to how a utility chooses to manage vegetation growth, nor does it set a maximum clearance distance. The choice of how to trim trees and manage vegetation growth near a power line is primarily made by the electric utility, subject to state and local requirements and laws, applicable safety codes and any limitations or obligations specified in right-of-way agreements to the extent they do not conflict with the FERC-approved reliability standards.
Question 2: I assume you’re familiar with the plight of California customers and utilities given our State’s recent devastating wildfires, including the application of “inverse condemnation” that may threaten the long-term fiscal health of our utilities.

a. In your experience, what sort of utility-related costs come in the aftermath of wildfires or other natural disasters? Repair and restoration? Other damages and liabilities?

Answer: The cost of repair or replacement of transmission facilities and liability for property damage in excess of recoveries provided by insurance are two of the most common types of expenses. The costs of vegetation management and initial insurance expenses to cover a utility from at least some of the liability associated with natural disasters are also costs that must be borne by utilities.

b. I understand that in most cases, assuming the affected utility has acted prudently, then the utility may recover many of these costs through rates. Is that correct? Given the exorbitant costs associated with natural disasters, what would be the financial impact on utilities if they were unable to recover such costs in full or at least partially?

Answer: The FERC’s transmission ratemaking mechanisms provide the opportunity for utilities to recover prudently incurred costs for restoration and repairs, less any recoveries already provided by insurance policies, in their transmission rates charged to customers. Generally, the FERC presumes that a utility’s expenditures are prudent in the absence of a challenge casting doubt on such prudence. I note that in 2014, San Diego Gas & Electric Company recovered $23.3 million in wildfire costs through FERC-jurisdictional transmission rates. The financial impact on utilities if they were unable to recover would vary on a case-by-case basis, but in the event a utility was not able to pass such costs to ratepayers, the financial burden would be borne by shareholders.

c. Is there a correlation between the fiscal health of a utility and the reliable service it is able to provide its customers? Similarly, is there a correlation between the fiscal health of a utility and its ability to build a stronger, more resilient power grid?

Answer: All registered entities (i.e., utilities and other entities required to be registered with NERC due to such entities’ operations and roles) are required to comply with the relevant reliability standards regardless of fiscal health. Generally, prudently incurred costs that a utility incurs for reliability purposes are recoverable from ratepayers.

d. Specific to FERC-jurisdictional facilities, assets, and rates, what ratemaking mechanisms or tools does FERC have in place to allow for consideration of recovery of costs for damages prudently incurred from natural disasters?
Answer: As noted in response to your question 2(b), the FERC’s transmission ratemaking mechanisms provide the opportunity for utilities to recover prudently incurred costs for restoration and repairs, less any recoveries already provided by insurance policies, in their transmission rates charged to customers. Utility rates typically include mechanisms to take into account non-routine scenarios and emergencies in order to provide utilities with the funding needed sooner for repairs and recoveries. If assets need to be entirely replaced, utilities may seek to recover such costs over a longer period of time.

The Honorable Paul Tonko

Natural Gas Exports and Public Benefit

Question 1: The energy landscape has changed dramatically since FERC issued its 1999 policy for certifying natural gas pipeline projects. The U.S. Energy Information Administration’s latest long-range projections anticipate liquefied natural gas (LNG) exports to grow significantly, so it seems reasonable to assume exports will play an increasing role in future gas infrastructure demand.

a. Will FERC’s review of its 1999 policy statement consider the role of LNG exports when determining whether a proposed project is required by the public convenience and necessity?

Answer: On April 19, 2018 the FERC issued a Notice of Inquiry (NOI) initiating the FERC’s review of its 1999 policy statement on the certification of new natural gas transportation facilities. The NOI seeks information and stakeholder perspectives to help the FERC explore whether, and if so how, it should revise its approach under its currently effective policy statement to determine whether a proposed natural gas project is or will be required by the present or future public convenience and necessity, as that standard is established in section 7 of the Natural Gas Act (NGA). I believe consideration of the role of LNG exports when determining whether a proposed project designed to bring natural gas to an export facility is required by the public convenience and necessity can be included in the scope of the NOI.

b. Should pipeline expansions that are intended to boost consumption overseas constitute a public benefit, particularly for those projects that require the use of federal eminent domain authority to take private property?

Answer: Section 3 of the NGA grants the Department of Energy exclusive authority to determine whether imports and exports of natural gas are in the public interest. However, the referenced FERC NOI poses questions in four broad categories of topics within the FERC’s jurisdiction including whether, and if so how, the FERC should adjust: (1) its methodology for determining
whether there is a need for a proposed project, and (2) its consideration of the potential exercise of eminent domain and of landowner interests related to a proposed project. Specifically, the FERC seeks input regarding what benefits the FERC should consider in determining whether there is a public need for a proposed project. The FERC also specifically requests comments on whether the FERC should consider the intended or expected end use of the natural gas, including projects transporting natural gas to the border for export or to an LNG facility for export, in its determinations regarding public need. Comments on the NOI are due June 25, 2018 and I look forward to fully reviewing the record in this proceeding.

c. Do you believe it is possible, and would it be appropriate, for FERC to differentiate between domestic needs versus foreign exports when determining if a project is required by the public convenience and necessity?

**Answer:** In the NOI, the FERC requests comments on whether consideration of end uses would better inform the FERC’s determination regarding whether there is a need for a proposed project. The FERC will review all input received in response to the NOI when considering any potential future FERC action.

**The Honorable David B. McKinley**

**Question 1:** When FERC denied the 403, did anyone come up with what the cost to that consumer could have been if 403 had been imposed on, let’s say, in Pleasants County power plant?

**Answer:** Given that the Notice of Proposed Rulemaking (NOPR) initiated by the Secretary of Energy did not satisfy threshold legal requirements of section 206 of the Federal Power Act as discussed in the order terminating that proceeding, the FERC did not analyze what an appropriate cost-of-service rate would have been for resources subject to the NOPR.

**The Honorable Frank Pallone, Jr.**

**Question 1:** Pertaining to the JCP&L proposed reliability project in Monmouth County, New Jersey, echoed by New Jersey Administrative Law Judge Gail Cookson, how can you change this dynamic to ensure that utilities look at more than just new transmission lines that they look at non-transmission alternatives to ensure reliability? And how can we change incentives so that these non-transmission alternatives are still financially attractive to utilities?

**Answer:** The FERC’s Order Nos. 890 and 1000 require open, transparent transmission planning processes for public utility transmission providers, which provide an opportunity to consider various transmission alternatives in order to identify more efficient or cost-effective solutions to
transmission needs. I support the goal of these efforts and will look for opportunities to ensure that FERC policy in this area continues to encourage consideration of the full range of potential solutions to transmission needs.
May 7, 2018

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 on Thursday, April 17, 2018, to testify at the hearing entitled “Oversight of the Federal Energy Regulatory Commission and the FY2019 Budget.”

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. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Monday, May 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Kelly.Collins@mail.house.gov.

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

Sincerely,

Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment
Office of The Commissioner

May 21, 2018

The Honorable Fred Upton, Chairman
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Upton:

Thank you for the opportunity to appear before the Subcommittee on Energy on Tuesday, April 17, 2018, to testify at the hearing entitled "Oversight of the Federal Energy Regulatory Commission and the FY 2019 Budget." Attached are my responses to the Supplemental Questions for the Record.

Sincerely,

Cheryl A. LaFleur
Commissioner
May 7, 2018

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

Dear Commissioner LaFleur:

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Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment
The Honorable Fred Upton

1. FERC has long held that it “does not pick winners or losers” regarding the fuels for generating electricity -- rather FERC’s role is to promote competition through market mechanisms.

   a. How does this philosophy square with the fact that some generators have characteristics or attributes (e.g., onsite fuel) that allow them to provide additional value in terms of reliability or resilience?

Response

I believe firmly that FERC’s longstanding fuel-neutral, market-based approach is the correct one for ensuring reliability at least cost to customers. The 21st century has brought accelerated technological change in energy, resulting in a transformation of the nation’s resource mix. This has been driven largely by the growth in the availability and affordability of domestic natural gas and its increased use for electric generation, and the rapid development and deployment of wind, solar, storage, and demand-side technologies. With these new technologies have come changes in the location and operation of energy resources, their cost patterns, and the way grid operators plan their systems and deploy resources to keep the lights on. As with all transitions, there have been market winners and losers as new technologies have brought competitive pressures to bear on existing resources. Resource turnover is a natural consequence of markets, and the reduced prices that result from greater competition are a benefit to customers, not a problem to solve, unless reliability is compromised.

As the recent Department of Energy grid study and numerous analyses by the North American Electric Reliability Corporation have noted, the transformation of the resource mix to date has been accomplished without compromising reliability. However, ensuring that this continues to be the case requires continued diligence, and the Commission’s consideration of the record in our resilience proceeding is another step in that effort. If the Commission is presented with persuasive evidence that a threat to reliability exists, or that a reliability attribute is being undervalued in the wholesale competitive markets, I will carefully consider that evidence and evaluate appropriate remedies.

Where the Commission has seen evidence of the need for greater system resilience in a changing resource mix, it has acted to ensure that such resilience was provided. It has generally done so by overseeing changes to market design (defining needed resource performance, and using competition to obtain it), interconnection agreements or other tariffs (requiring that certain essential reliability services be provided), or mandatory reliability standards. In each case, the Commission has recognized a customer need, relied upon evidence to define it in a fuel-neutral way, and either allowed the market to transparently price it or established broad requirements to ensure that a needed service is provided. If
evidence demonstrates that reliability or resilience needs are going unmet, I believe that the Commission should take a comparable approach.

2. In the recent “resilience” filing, ISO-New England was the only RTO to identify an imminent threat to resilience within its footprint, with that threat being its overwhelming dependence on natural gas and constrained fuel supplies during extreme cold weather events.

   a. In your view, what are some viable solutions to ISO-New England’s reliability and resiliency concerns should we be considering ways to increase pipeline capacity?

   **Response**

   The Commission currently has before it a proposal from ISO New England to mitigate its fuel security concerns through mid-2024. I will be carefully considering the merits of that proposal.

   In addition, ISO New England is currently in discussions with its regional stakeholders on potential market-based solutions to address its stated fuel security concerns. ISO New England stated in its comments in the Commission’s resilience proceeding that, given the complexity of the fuel security issue, it believes the region needs sufficient time to develop a solution and test its robustness through the established regional stakeholder process. To the extent additional measures are required to ensure continued reliability and resilience in New England, my preference would be for a market-based mechanism that can meet the region’s fuel security needs at least cost for customers. Additional natural gas infrastructure or other new resource additions could be part of any such solution.

3. Under section 205 of the Federal Power Act, FERC is prohibited from making modifications to tariff proposals that are substantial enough to transform them into entirely new proposals. Last summer, the DC Circuit issued a ruling in NRG v. FERC that FERC had contravened this limitation on its authority when proposing changes to PJM’s filing to change its rate structure. This undermines FERC’s longstanding practice of approving filings subject to certain changes being made, rather than rejecting filings with questionable aspects altogether.

   a. Can you describe if this ruling has adversely affected the way FERC reaches a determination?

   b. Is the public interest harmed by this ruling?

   c. Is a legislative fix necessary to clarify Section 205 of the FPA?
Response

I do have concerns regarding the impact of the D.C. Circuit’s ruling on the Commission’s processing of section 205 rate filings. Our longstanding practice has been to approve rate filings subject to conditions if the Commission finds that aspects of the filing must be changed to ensure that the approved rate is just and reasonable. The D.C. Circuit’s ruling in NRG appears to significantly limit the Commission’s ability to approve section 205 filings in this manner. As a result, the Commission may process cases differently after the NRG decision than it would have prior to that decision, resulting in more rejections and a loss of efficiency in Commission proceedings.

The NRG decision has particularly significant impacts on our market work. As our market rules are becoming increasingly complex, this lack of flexibility regarding consideration of section 205 filings will create significant challenges for the Commission and for the regulated community. If the Commission is no longer able to approve section 205 rate filings subject to conditions, it will force the Commission to reject such filings with increasing frequency. This will make it more difficult for stakeholders to acquire Commission approval of complicated market rule changes, particularly in a timely manner.

Given these impacts, I do believe that the public interest is being harmed by this ruling, and that a legislative change could help to fully address it.

4. FERC does not have the authority to mandate that a certain amount of power be generated by resources. In response to various legislative efforts to support nuclear generation, the industry is debating whether individual state actions are harming the efficient operation of the organized wholesale electricity markets. States including New York and Illinois have enacted or legislation that would protect “at-risk” nuclear generation units from closure due to their inability to compete economically in a competitive market.

   a. Litigation is currently underway in the U.S. Court of Appeals (2nd & 7th Circuits) regarding the lawfulness of these subsidies. Will FERC assist the Court in providing its views (as requested by the Court)?

   b. Do you or FERC have a position the appropriateness of these credits?

Response

Please refer to the answer submitted by Chairman McIntyre.

5. In July 2011, FERC issued Order 1000 – a landmark rule designed to increase regional transmission development by non-incumbent utilities and foster competition for innovative and cost-effective projects. However, after more than 6 years, few new transmission projects can be directly attributed to Order No. 1000 and a recent FERC staff report admitted that “it is difficult to assess whether the industry is investing in sufficient
transmission infrastructure to meet the nation’s needs and whether the investments made are more efficient or cost-effective."

a. What are the Commission’s views on this rule? Should it be reexamined?

Response

As the Commission indicated in its 2017 staff report on transmission metrics, there are several reasons we encounter difficulty in quantifying the sufficiency of industry investment in transmission infrastructure and whether investment is more efficient or cost-effective. For example, stakeholders in a particular region may not have a unanimous opinion of what constitutes an appropriate amount of transmission investment. Some transmission issues can be addressed by alternatives to transmission, such as generation and demand-side resources, while others can only be addressed with transmission investment. Although challenging, the Commission has developed metrics to assess transmission investment patterns. What we’ve identified through our metrics and through discussions with stakeholders and RTO/ISO regions is that we have made progress, but challenges remain.

As the reconstituted Commission works its way through the outstanding policy issues left unaddressed during the no quorum period, I would encourage a review of the record developed during our technical conference on competitive transmission development in June 2016. I believe competition has delivered value for customers where it has been allowed to work. However, the introduction of competitive processes has been difficult. As I have previously stated, I am concerned that the threat of competition has led to changes to transmission planning processes as incumbents favor projects that do not require competitive bidding. I am open to considering ways to further improve competitive processes and ensure effective transmission planning.

6. Each of the RTOs/ISOs employ a market monitor to oversee the activities of the markets, but each of them has a different structure. Some RTOs contract with an independent entity to serve this role (e.g., PJM and MISO), while others rely on an internal monitor (e.g., Southwest Power Pool and CAISO) and others have both an internal monitor and an external independent monitor (e.g., ISO-New England and New York ISO).

a. After 20 years of experience with market monitors in the organized markets, there remains a good deal of confusion regarding the role of the monitors, which type of monitoring structure works best, and who the market monitor is ultimately responsible to.

i. What are your thoughts on the role of the market monitor? Are any changes necessary?
Response

Please refer to the answer submitted by Chairman McIntyre.

The Honorable John Shimkus

Load Serving Entity Rights; FPA §217(b)(4):

1. Section 217 (b) (4) of the Federal Power Act directs FERC to exercise its authority to facilitate the planning and expansion of the transmission grid to meet the reasonable needs of Load Serving Entities, and enable utilities with an obligation to serve to secure firm transmission rights for their long term power supply arrangements. In your opinion, what is the extent of FERC’s obligation to ensure that Congress’ directive with regard to firm transmission rights for long-term power supply arrangements is met?

Response

Please refer to the answer submitted by Chairman McIntyre.

Ownership of Transmission Assets:

2. The Commission has, on several occasions, expressed strong support for Joint Ownership of transmission, noting that it has proven to be a model that gets transmission built quickly, efficiently and at low cost. In its November 15, 2012 Policy Statement on transmission incentives, the Commission “encourage[d] incentives applicants to participate in joint ownership arrangements and agrees … that such arrangements can be beneficial by diversifying financial risk across multiple owners and minimizing siting risks included,” but this statement has not spurred additional joint ownership arrangements. If it can be established that the joint ownership model of transmission ownership results in a more robust grid, should the Commission do more to actively promote joint ownership arrangements involving public power entities? Why or why not?

Response

I believe that joint ownership of transmission facilities can provide real benefits for consumers, help ensure non-discriminatory access to the transmission system, facilitate siting of new transmission, and expand the scope of potential investment in the grid. Part of the motivation behind Order No. 1000 was to promote new forms of transmission development and ownership, including partnerships between or among incumbent transmission owners, public power entities, and new non-incumbent developers. In fact, a partnership among LS Power, Big Rivers Electric Corporation, Inc., and Hoosier Energy Rural Electric Cooperative, Inc. was selected by the Midcontinent Independent System Operator, Inc. (MISO) in late 2016 to develop a new high voltage transmission project in the MISO footprint, demonstrating the potential for these types of partnerships. I agree that the Commission should be alert for opportunities to support joint ownership arrangements.
The Honorable Richard Hudson

1. As you know, FERC is litigating a number of enforcement cases in federal district court and several of these cases involve virtual trading in the electricity markets. While some suggest that virtual trading allows utilities to hedge against price volatility and congestion, others have argued that virtual transactions are not being used as intended, resulting in profits to traders without adding any commensurate benefit and a decline in the performance of the markets.

   a. Since there is a track-record of market manipulation involving virtual products, does FERC have any plans to review its existing policies regarding virtual trading in RTO markets?

   **Response**
   
   Please refer to the answer submitted by Chairman McIntyre.

   b. What further steps can FERC take to prevent market manipulation through virtual trading?

   **Response**
   
   Please refer to the answer submitted by Chairman McIntyre.

The Honorable Scott Peters

1. Commissioner, I assume you’re familiar with the plight of California customers and utilities given our State’s recent devastating wildfires, including the application of “inverse condemnation” that may threaten the long-term fiscal health of our utilities.

   a. In your experience, what sort of utility-related costs come in the aftermath of wildfires or other natural disasters? Repair and restoration? Other damages and liabilities?

   **Response**
   
   As stated by the Chairman in his response to this question, the cost of repair or replacement of transmission facilities and liability for property damage in excess of recoveries provided by insurance are two of the most common types of expenses. The costs of vegetation management and initial insurance expenses to cover a utility from at least some of the liability associated with natural disasters are also costs that must be borne by utilities. I would also note that an additional expense many utilities incur are costs related to hardening
of facilities to improve resilience, including resilience against the increasing impacts from climate change.

b. I understand that in most cases, assuming the affected utility has acted prudently, then the utility may recover many of these costs through rates. Is that correct? Given the exorbitant costs associated with natural disasters, what would be the financial impact on utilities if they were unable to recover such costs in full or at least partially?

Response

Please refer to the answer submitted by Chairman McIntyre.

c. Is there a correlation between the fiscal health of a utility and the reliable service it is able to provide its customers? Similarly, is there a correlation between the fiscal health of a utility and its ability to build a stronger, more resilient power grid?

Response

Yes, on both counts.

d. Specific to FERC-jurisdictional facilities, assets, and rates, what ratemaking mechanisms or tools does FERC have in place to allow for consideration of recovery of costs for damages prudently incurred from natural disasters?

Response

Please refer to the answer submitted by Chairman McIntyre.

The Honorable Paul Tonko

1. Natural Gas Exports and Public Benefit

The energy landscape has changed dramatically since FERC issued its 1999 policy for certifying natural gas pipeline projects. The U.S. Energy Information Administration’s latest long-range projections anticipate liquefied natural gas (LNG) exports to grow significantly, so it seems reasonable to assume exports will play an increasing role in future gas infrastructure demand.

a. Will FERC’s review of its 1999 policy statement consider the role of LNG exports when determining whether a proposed project is required by the public convenience and necessity?
Response

With respect to LNG exports, the export of the gas is subject to the jurisdiction of the Department of Energy (DOE), while the Commission approves the export facilities under section 3 of the Natural Gas Act (NGA) and frequently approves the pipeline to the LNG facility under section 7 of the NGA. As the Chairman states in his response to this question, on April 19, 2018, the FERC issued a Notice of Inquiry (NOI) initiating the FERC’s review of its 1999 policy statement on the certification of new natural gas transportation facilities. The NOI seeks information and stakeholder perspectives to help the FERC explore whether, and if so how, it should revise its approach under its currently effective policy statement to determine whether a proposed natural gas project is or will be required by the present or future public convenience and necessity, as that standard is established in section 7 of the NGA. As the Chairman further stated, consideration of the role of LNG exports when determining whether a proposed project designed to bring natural gas to an export facility is required by the public convenience and necessity can be included in the scope of the NOI.

b. Should pipeline expansions that are intended to boost consumption overseas constitute a public benefit, particularly for those projects that require the use of federal eminent domain authority to take private property?

Response

Please refer to the answer submitted by Chairman McIntyre.

c. Do you believe it is possible, and would it be appropriate, for FERC to differentiate between domestic needs versus foreign exports when determining if a project is required by the public convenience and necessity?

Response

I have previously expressed the view that the Commission should consider requiring more information in its pipeline dockets on end use of the natural gas, to help determine both the need for and the environmental impacts of a proposed pipeline project. In the case where FERC considers a pipeline to serve an LNG facility, considering end uses is more complicated because the DOE approves the export of that natural gas. As the Chairman states in his response to this question, in the NOI, the FERC requests comments on whether consideration of end uses would better inform the FERC’s determination regarding whether there is a need for a proposed project. The FERC will review all input received in response to the NOI when considering any potential future FERC action.
The Honorable Neil Chatterjee  
Commissioner  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426  

Dear Commissioner Chatterjee:

Thank you for appearing before the Subcommittee on Energy on Thursday, April 17, 2018, to testify at the hearing entitled “Oversight of the Federal Energy Regulatory Commission and the FY2019 Budget.”

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. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Monday, May 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Kelly.Collins@mail.house.gov.

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

Sincerely,

Fred Upton  
Chairman  
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment
The Honorable Fred Upton, Chairman
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

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Sincerely,

Neil Chatterjee
Commissioner
Federal Energy Regulatory Commission
The Honorable Fred Upton

1. FERC has long held that it “does not pick winners or losers” regarding the fuels for generating electricity -- rather FERC’s role is to promote competition through market mechanisms.

   a. How does this philosophy square with the fact that some generators have characteristics or attributes (e.g., onsite fuel) that allow them to provide additional value in terms of reliability or resilience?

The organized electricity markets FERC oversees provide tremendous benefits to consumers. The Commission’s commitment to ensuring that RTO and ISO market constructs are fuel neutral is not incompatible with valuing certain attributes. For instance, organized electricity markets provide compensation for certain essential ancillary services such as black start and frequency regulation, which some generators can provide but others cannot. The generators’ ability to provide these services is based on operational characteristics, not fuel type. On January 8, 2018, the Commission established a proceeding (Grid Resilience in Regional Transmission Organizations and Independent System Operators, Docket No. AD18-7) to examine bulk power system resilience and consider whether organized electricity markets should identify and compensate other attributes for their contributions to bulk power system resilience in light of the changing generation resource mix.

2. FERC does not have the authority to mandate that a certain amount of power be generated by resources. In response to various legislative efforts to support nuclear generation, the industry is debating whether individual state actions are harming the efficient operation of the organized wholesale electricity markets. States including New York and Illinois have enacted or legislation that would protect “at-risk” nuclear generation units from closure due to their inability to compete economically in a competitive market.

   a. Litigation is currently underway in the U.S. Court of Appeals (2nd & 7th Circuits regarding the lawfulness of these subsidies. Will FERC assist the Court in providing its views (as requested by the Court)?

Commission Staff has been working with the U.S. Department of Justice in drafting a joint, *amicus curiae* brief providing assistance requested by the U.S. Court of Appeals for the Seventh Circuit in the pending appellate litigation over the appropriateness of Illinois’s zero emission credit program.

To my knowledge, the U.S. Court of Appeals for the Second Circuit has not asked the Commission to render similar assistance in the pending appellate litigation over the appropriateness of New York State’s zero emission credit program.

   b. Do you or FERC have a position the appropriateness of these credits?
The zero emission credit programs in Illinois and New York are the subject of pending, contested proceedings (Docket Nos. EL16-49 and EL13-62) currently before the Commission. Therefore the Commission’s rules limiting ex parte communications preclude me from opining on the appropriateness of those programs before the Commission has issued decisions in the relevant proceedings.

3. In July 2011, FERC issued Order 1000 – a landmark rule designed to increase regional transmission development by non-incumbent utilities and foster competition for innovative and cost-effective projects. However, after more than 6 years, few new transmission projects can be directly attributed to Order No. 1000 and a recent FERC staff report admitted that “it is difficult to assess whether the industry is investing in sufficient transmission infrastructure to meet the nation’s needs and whether the investments made are more efficient or cost-effective.”

   a. What are the Commissions views on this rule? Should it be reexamined?

Order No. 1000’s encouragement of competitive transmission projects is a critical element in the Commission’s efforts to promote cost-effective, innovative, transmission infrastructure development. The Commission expends significant effort toward ensuring its implementation of Order No. 1000 reflects the important role envisioned for competitive transmission development in building out a 21st-century grid. For example:

   • The Commission in June 2016 held a technical conference on implementation of Order No. 1000 focused in large part on competitive transmission projects and regional transmission development;
   • Beginning in 2016, the Commission has published an annual Transmission Metrics Staff Report providing metrics for use by stakeholders and policymakers in assessing post-Order No. 1000 transmission investment patterns within organized markets; and
   • Commissioners and Commission staff meet frequently with diverse stakeholders (including competitive transmission project developers) who provide their perspectives on the Commission’s implementation of Order No. 1000.

I am a strong believer in competition and its ability to unlock cost savings and other significant benefits for consumers and industry. I look forward to working closely with my fellow Commissioners to ensure that the implementation of Order No. 1000 effectively leverages competitive forces, thereby enabling cost-effective, innovative development of required electricity transmission infrastructure.

4. Each of the RTOs/ISOs employ a market monitor to oversee the activities of the markets, but each of them has a different structure. Some RTOs contract with an independent entity to serve this role (e.g., PJM and MISO), while others rely on an internal monitor (e.g., Southwest Power Pool and CAISO) and others have both an internal monitor and an external independent monitor (e.g., ISO-New England and New York ISO).
a. After 20 years of experience with market monitors in the organized markets, there remains a good deal of confusion regarding the role of the monitors, which type of monitoring structure works best, and who the market monitor is ultimately responsible to.

i. What are your thoughts on the role of the market monitor? Are any changes necessary?

After carefully analyzing a large number of comments from various stakeholders, the Commission issued Order No. 2000, which determined that it would be appropriate to allow RTOs to have different market monitoring structures to meet their individual needs. In Order No. 719, the Commission chose to maintain this flexibility while adopting a number of reforms to further strengthen the role of market monitor. These reforms included requiring market monitors to report directly to the RTO/ISO board of directors and establishing ethics standards for market monitors. Order No. 719 also ensured that market monitors were provided with the independence and authority to evaluate any needed changes to the markets and to bring them to the attention of concerned entities, to review and report on the performance of the markets, and to refer suspected wrongdoing to the Commission.

I believe that market monitors continue to play an important role in ensuring that customers pay just and reasonable rates for electricity. Since joining the Commission, I’ve been impressed by the thoughtful comments and analyses provided by all of the market monitors across each of the RTOs and ISOs. In my view, effective market monitoring remains an important element of RTO and ISO markets. Moreover, since the issuance of Order No. 2000, the Commission has issued further guidance on the role of market monitors in Order No. 719 and various other orders. However, to the extent stakeholders believe there are opportunities to better clarify the role of the market monitors or make other improvements to the market monitoring construct, I would certainly consider such input.

The Honorable John Shimkus

Load Serving Entity Rights; FPA §217(b)(4):

1. Section 217 (b) (4) of the Federal Power Act directs FERC to exercise its authority to facilitate the planning and expansion of the transmission grid to meet the reasonable needs of Load Serving Entities, and enable utilities with an obligation to serve to secure firm transmission rights for their long term power supply arrangements. In your opinion, what is the extent of FERC’s obligation to ensure that Congress’ directive with regard to firm transmission rights for long-term power supply arrangements is met?

As you noted, section 217(b)(4) of the Federal Power Act provides that:

See e.g., Market Monitoring Units in Regional Transmission Organizations and Independent System Operators, 111 FERC ¶ 61,267 (2005).
The Commission shall exercise the authority of the Commission under this Act in a manner that facilitates the planning and expansion of transmission facilities to meet the reasonable needs of load-serving entities to satisfy the service obligations of the load-serving entities, and enables load-serving entities to secure firm transmission rights (or equivalent tradable or financial rights) on a long-term basis for long-term power supply arrangements made, or planned, to meet such needs.

I became familiar with the needs of load-serving entities when I worked for the National Rural Electric Cooperative Association, and I take this statutory responsibility seriously. In 2006, FERC issued Order No. 681 to implement this statute by amending the Commission’s regulations to provide guidelines which RTOs and ISOs must follow in order to make long-term firm transmission rights available to all transmission customers and to provide certainty to load-serving entities. I must note that the D.C. Circuit has held that the statute does not create a preference for load-serving entities in all contexts and that the section would be violated only if the FERC were to exercise its authority in a manner that is at odds with the needs of load-serving entities.

Ownership of Transmission Assets:

2. The Commission has, on several occasions, expressed strong support for Joint Ownership of transmission, noting that it has proven to be a model that gets transmission built quickly, efficiently and at low cost. In its November 15, 2012 Policy Statement on transmission incentives, the Commission “encourage[d] incentives applicants to participate in joint ownership arrangements and agrees ... that such arrangements can be beneficial by diversifying financial risk across multiple owners and minimizing siting risks included,” but this statement has not spurred additional joint ownership arrangements. If it can be established that the joint ownership model of transmission ownership results in a more robust grid, should the Commission do more to actively promote joint ownership arrangements involving public power entities? Why or why not?

I agree with the statement within the Commission’s November 2012 Policy Statement (Promoting Transmission Investment through Pricing Reform, 141 FERC ¶ 61,129) that joint ownership arrangements can have meaningful risk-reduction benefits for transmission project developers. With that in mind, I am open to hearing the perspectives of stakeholders regarding the benefits of joint electricity transmission infrastructure ownership models, as well as whether and how the Commission should more actively promote the same.

The Honorable Markwayne Mullin

1. On December 9, 2016, the Federal Energy Regulatory Commission (FERC) denied the request for a rehearing of the Commission’s March 11, 2016, decision to deny applications for the Jordan Cove Energy and Pacific Connector Gas Pipeline Project (Jordan Cove) in Docket Nos. CP13-483 and CP13-492. In its March 11th order,
FERC stated that the project proponents had not demonstrated a need for the export terminal and pipeline, citing a lack of demonstrated market demand. Following the decision, Jordan Cove quickly procured contract agreements for 75 percent of the pipeline’s capacity and 50 percent of the export terminal’s LNG. Now that market demand has been demonstrated, will FERC now revisit the Jordan Cove application?

I appreciate your interest in these projects. FERC is currently considering the Jordan Cove Energy Project and Pacific Connector Gas Pipeline’s applications. On February 10, 2017, FERC approved Jordan Cove and Pacific Connector’s request to use our pre-filing process to recommence review of the projects. On June 9, 2017, the Commission issued a Notice of Intent to Prepare an Environmental Impact Statement for the project and subsequently held three public scoping sessions. On September 21, 2017, applications for the Jordan Cove Energy Project and Pacific Connector Gas Pipeline were submitted to FERC. Commission staff is now reviewing the applications and working on preparing an Environmental Impact Statement. Once that is completed, the Commission will be in a position to act on the application.

The Honorable Richard Hudson

1. As you know, FERC is litigating a number of enforcement cases in federal district court and several of these cases involve virtual trading in the electricity markets. While some suggest that virtual trading allows utilities to hedge against price volatility and congestion, others have argued that virtual transactions are not being used as intended, resulting in profits to traders without adding any commensurate benefit and a decline in the performance of the markets.

   a. Since there is a track-record of market manipulation involving virtual products, does FERC have any plans to review its existing policies regarding virtual trading in RTO markets?

The Commission is not currently pursuing generic reforms to virtual trading practices; instead, it is evaluating proposals regarding virtual trading on a case-by-case basis. For example, on February 20, 2018, the Commission accepted a proposal from PJM to reduce the number of bidding points at which market participants can submit virtual transactions.\(^2\)

   b. What further steps can FERC take to prevent market manipulation through virtual trading?

FERC has a robust enforcement program which serves to deter misconduct across all our areas of jurisdiction, including manipulation of wholesale electricity markets. As noted in your question, the Commission has undertaken enforcement actions against a number of entities that have manipulated wholesale electricity markets, including several traders using “virtual” products in RTO/ISO markets. The Commission’s Office of Enforcement works in close collaboration with RTOs/ISOs and their market monitors to oversee all trading activity. Fair enforcement is critical to ensuring that

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\(^2\) PJM Interconnection, LLC, 162 FERC ¶ 61,139 (2018).
consumers maintain confidence in wholesale electricity markets, and I will continue to support enforcement actions against entities that engage in market manipulation.

The Honorable Scott Peters

1. Commissioner, I assume you're familiar with the plight of California customers and utilities given our State's recent devastating wildfires, including the application of “inverse condemnation” that may threaten the long-term fiscal health of our utilities.

   a. In your experience, what sort of utility-related costs come in the aftermath of wildfires or other natural disasters? Repair and restoration? Other damages and liabilities?

My understanding is that most post-wildfire/natural disaster expenses consist of those costs not covered by insurance that are related to (1) repair/replacement of damaged transmission facilities and (2) liability for damage to the property of third parties.

   b. I understand that in most cases, assuming the affected utility has acted prudently, then the utility may recover many of these costs through rates. Is that correct? Given the exorbitant costs associated with natural disasters, what would be the financial impact on utilities if they were unable to recover such costs in full or at least partially?

The Commission historically has permitted transmission utilities to recover through their transmission rates any prudently-incurred repair and restoration costs not covered by insurance. In the event that a transmission utility were unable to recover its post-wildfire or natural disaster costs through the transmission rates charged to its customers, that utility (or more precisely, its shareholders) would ordinarily bear such costs.

   c. Is there a correlation between the fiscal health of a utility and the reliable service it is able to provide its customers? Similarly, is there a correlation between the fiscal health of a utility and its ability to build a stronger, more resilient power grid?

The Commission allows transmission utilities to recover their prudently-incurred costs in complying with relevant NERC reliability standards so that transmission utilities can avoid having to choose between system reliability and fiscal solvency.

   d. Specific to FERC-jurisdictional facilities, assets, and rates, what ratemaking mechanisms or tools does FERC have in place to allow for consideration of recovery of costs for damages prudently incurred from natural disasters?

As I explained in my response to an earlier question, the Commission historically has permitted transmission utilities to recover through their transmission rates any prudently-incurred repair and restoration costs not covered by insurance.
1. **Natural Gas Exports and Public Benefit**

The energy landscape has changed dramatically since FERC issued its 1999 policy for certifying natural gas pipeline projects. The U.S. Energy Information Administration’s latest long-range projections anticipate liquefied natural gas (LNG) exports to grow significantly, so it seems reasonable to assume exports will play an increasing role in future gas infrastructure demand.

a. Will FERC’s review of its 1999 policy statement consider the role of LNG exports when determining whether a proposed project is required by the public convenience and necessity?

The Commission’s April 19, 2018, Notice of Inquiry (NOI) regarding Certification of New Interstate Natural Gas Facilities seeks stakeholder comment to assist the Commission in evaluating whether, and if so how, it should revise its approach under its current Certificate Policy Statement. The NOI explains that increases in both domestic and international demand for natural gas produced in the United States have led to the Commission receiving and approving an increased number of pipeline and LNG export terminal applications in recent years. Accordingly, the NOI asks whether end uses of natural gas, such as LNG export, should be considered as part of the certificate evaluation process.

b. Should pipeline expansions that are intended to boost consumption overseas constitute a public benefit, particularly for those projects that require the use of federal eminent domain authority to take private property?

The NOI seeks comments on potential modifications to the Commission’s approach to determining whether a proposed project is required by the public convenience and necessity. The NOI requests comments in several general areas of examination, including the potential exercise of eminent domain and landowner interests. I look forward to reviewing the comments on this issue and to working with my colleagues to ensure the Commission’s processes appropriately address the concerns of landowners affected by infrastructure projects.

c. Do you believe it is possible, and would it be appropriate, for FERC to differentiate between domestic needs versus foreign exports when determining if a project is required by the public convenience and necessity?

As I noted above, the NOI requests comment regarding whether the Commission should consider the intended or expected end use of the natural gas and what challenges exist in determining the ultimate end use of new pipeline capacity. I look forward to reviewing the comments on this issue.
May 7, 2018

The Honorable Robert F. Powelson
Commissioner
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Commissioner Powelson:

Thank you for appearing before the Subcommittee on Energy on Thursday, April 17, 2018, to testify at the hearing entitled "Oversight of the Federal Energy Regulatory Commission and the FY2019 Budget."

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. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Monday, May 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Kelly.Collins@mail.house.gov.

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

Sincerely,

Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment
May 21, 2018

The Honorable Fred Upton, Chairman
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Upton:

Thank you for the opportunity to appear before the Subcommittee on Energy on Tuesday, April 17, 2018, to testify at the hearing entitled “Oversight of the Federal Energy Regulatory Commission and the FY 2019 Budget.” Attached are my responses to the Additional Questions for the Record.

Sincerely,

Commissioner Robert F. Powelson
Questions for the Record Submitted to the Honorable Robert F. Powelson

The Honorable Fred Upton

Question 1: FERC has long held that it “does not pick winners or losers” regarding the fuels for generating electricity -- rather FERC’s role is to promote competition through market mechanisms.

a. How does this philosophy square with the fact that some generators have characteristics or attributes (e.g., onsite fuel) that allow them to provide additional value in terms or reliability or resilience?

Answer: As Chairman McIntyre notes in his response to this question, the Commission has long regarded competitive markets as the appropriate mechanism for compensating resources for the services they provide to the electric grid and has aimed to do so independent of resource class. I agree with this statement. Furthermore, in Docket No. AD18-7-000, the Commission directed operators of the regional wholesale power markets to provide information about whether the Commission and the markets need to take additional action on the resilience of the bulk power system. The goals of this proceeding are to develop a common understanding among the Commission, industry and others of what the resilience of the bulk power system means and requires, to understand how each regional transmission organization and independent system operator assesses resilience in its geographic footprint; and to use this information to evaluate whether additional Commission action regarding resilience is appropriate. Should the Commission hear from an RTO or ISO that there is a reliability or resilience problem because the market is not providing certain necessary services, the Commission would certainly consider options for improving the market.

Question 2: FERC does not have the authority to mandate that a certain amount of power be generated by resources. In response to various legislative efforts to support unclear generation, the industry is debating whether individual state actions are harming the efficient operation of the organized wholesale electricity markets. States including New York and Illinois have enacted or legislation that would protect “at-risk” nuclear generation units from closure due to their inability to compete economically in a competitive market.

a. Litigation is currently underway in the U.S. Court of Appeals (2nd & 7th Circuits regarding the lawfulness of these subsidies. Will FERC assist the Court in providing its views (as requested by the Court)?

b. Do you or FERC have a position the appropriateness of these credits?

Answer: The Commission is certainly aware of this proceeding and of the court’s request for the Commission’s position on the issue. As reflected in Chairman McIntyre’s response to this question, in light of the court’s invitation, Commission staff is working with the Department of Justice, which plans to file the requested brief. Chairman McIntyre also notes that matters currently pending before the Commission present the separate question of whether the Illinois
program affects wholesale rates in Commission-jurisdictional markets in a manner that warrants Commission action. I agree that because the Commission is carefully considering that issue, expressing a view as to the appropriateness of zero emission credits could prejudge that pending matter and thus would be inappropriate at this time.

**Question 3:** In July 2011, FERC issued Order 1000—a landmark rule designed to increase regional transmission development by non-incumbent utilities and foster competition for innovative and cost-effective projects. However, after more than 6 years, few new transmission projects can be directly attributed to Order No. 1000 and a recent FERC staff report admitted that “it is difficult to assess whether the industry is investing in sufficient transmission infrastructure to meet the nation’s needs and whether the investments made are more efficient or cost-effective.”

a. What are the Commission’s views on this rule? Should it be reexamined?

**Answer:** I support the policies behind Order No. 1000. Removing barriers to development and injecting competition into transmission planning are important goals. However, I also agree that Order No. 1000 has not always worked to stimulate the needed investment in transmission envisioned when the order was written. I am certainly open to improving the transmission planning process and reviewing the requirements in Order No. 1000.

**Question 4:** Each of the RTOs/ISOs employ a market monitor to oversee the activities of the markets, but each of them has a different structure. Some RTOs contract with an independent entity to serve this role (e.g., PJM and MISO), while others rely on an internal monitor (e.g., Southwest Power Pool and CAISO) and others have both an internal monitor and an external independent monitor (e.g., ISO-New England and New York ISO).

a. After 20 years of experience with market monitors in the organized markets, there remains a good deal of confusion regarding the role of the monitors, which type of monitoring structure works best, and who the market monitor is ultimately responsible to.

i. What are your thoughts on the role of the market monitor? Are any changes necessary?

**Answer:** As Chairman McIntyre’s response to this question indicates, certain aspects of the market monitor’s role are pending before the Commission. Due to the pending matters I am limited in my ability to discuss my thoughts regarding the role and whether any changes are necessary. However, generally I believe that market monitors provide an important check on grid operators, market rules, and tariff provisions in organized markets. Additionally, given that markets differ from region to region and the Commission strives to respect regional differences, it makes sense that different markets have different structures for their market monitors. There is not a one-size-fits-all answer for how markets and market monitors should be organized. As
issues arise, the Commission is always open to reviewing suggestions for how to improve the relationship or clarify the role of the market monitor.

The Honorable John Shimkus

Load Serving Entity Rights; FPA §217(b)(4):

Question 1: Section 217 (b) (4) of the Federal Power Act directs FERC to exercise its authority to facilitate the planning and expansion of the transmission grid to meet the reasonable needs of Load Serving Entities, and enable utilities with an obligation to serve to secure firm transmission rights for their long term power supply arrangements. In your opinion, what is the extent of FERC’s obligation to ensure that Congress’ directive with regard to firm transmission rights for long-term power supply arrangements is met?

Answer: I agree with Chairman McIntyre’s response to this question.

Ownership of Transmission Assets:

Question 2: The Commission has, on several occasions, expressed strong support for Joint Ownership of transmission, noting that it has proven to be a model that gets transmission built quickly, efficiently and at low cost. In its November 15, 2012 Policy Statement on transmission incentives, the Commission “encourage[d] incentives applicants to participate in joint ownership arrangements and agrees ... that such arrangements can be beneficial by diversifying financial risk across multiple owners and minimizing siting risks included,” but this statement has not spurred additional joint ownership arrangements. If it can be established that the joint ownership model of transmission ownership results in a more robust grid, should the Commission do more to actively promote joint ownership arrangements involving public power entities? Why or why not?

Answer: I agree with Chairman McIntyre’s answer to this question.

The Honorable Bill Johnson

Question 1: During the hearing, I asked about FERC’s security practices for protecting sensitive information such as Critical Energy Infrastructure Information (CEII) that the Commission collects from regulated energy companies and shares with third parties. In your response, you mentioned the work that FERC and NERC did on the recent supply chain standard for regulated energy companies. However, I’d like to know what FERC is doing to protect CEII. In light of events such as attacks on the U.S. government (including FERC) and several universities, the recent Energy Services Group attack, and the policy violation issues at Facebook, what is your thinking on the Commission’s current security practices for protecting sensitive information such as CEII. What is the FERC doing to strengthen these practices? What is the Commission doing to vet third party access to sensitive data?
The Commission is committed to ensuring that its approach to handling sensitive information, including Critical Energy/Electric Infrastructure Information (CEII), reflects robust safeguards while also accounting for legitimate needs for access to such information.

This commitment builds on the Commission’s long history of protecting sensitive information. For example, the Commission took proactive steps after September 11, 2001, to remove from public files and our online eLibrary database certain documents that were likely to contain detailed specifications about critical energy infrastructure. In 2003, the Commission issued regulations on treatment of CEII, establishing procedures by which an individual seeking such information from the Commission must demonstrate a need for that information and sign a non-disclosure agreement (NDA).

In 2015, Congress enacted the Fixing America’s Surface Transportation Act (FAST Act), which among other actions, established an exemption for CEII from mandatory disclosure under the Freedom of Information Act. In accordance with a Congressional directive, the Commission in 2016 issued Order No. 833 to implement those and other FAST Act requirements with respect to CEII, enhancing the Commission’s then-existing CEII regulations. Order No. 833 establishes criteria and procedures to designate information as CEII, prohibits the unauthorized disclosure of CEII, establishes sanctions for Commission employees and certain other individuals who knowingly and willfully make unauthorized disclosures, and facilitates voluntary sharing of CEII among certain entities. With respect to third party access to CEII, Order No. 833 requires that members of the public who request access to CEII must demonstrate a valid and legitimate need for the information, which the Commission evaluates on a case-by-case basis. There are also procedures to notify submitters of CEII of the prospective sharing of information, as well as a requirement that prospective CEII recipients execute NDAs.

The Honorable Richard Hudson

Question 1: As you know, FERC is litigating a number of enforcement cases in federal district court and several of these cases involve virtual trading in the electricity markets. While some suggest that virtual trading allows utilities to hedge against price volatility and congestion, others have argued that virtual transactions are not being used as intended, resulting in profits to traders without adding any commensurate benefit and a decline in the performance of the markets.

a. Since there is a track-record of market manipulation involving virtual products, does FERC have any plans to review its existing policies regarding virtual trading in RTO markets?

b. What further steps can FERC take to prevent market manipulation through virtual trading?

Answer: As Chairman McIntyre notes in his response to this question, the Commission is currently considering existing policies related to virtual transactions in several pending
proceedings and, therefore, I do not want to prejudge those issues. More generally, I believe that clearly defined market rules, strong market monitoring practices, and Commission guidance all help deter market manipulation through virtual trading. Ultimately, however, it is up market participants to engage in practices that respect market rules and the Commission’s anti-manipulation rule. These rules exist for a reason, and in cases where evidence points to a violation, enforcement action is appropriate.

The Honorable Scott Peters

Question 1: Commissioner, I assume you’re familiar with the plight of California customers and utilities given our State’s recent devastating wildfires, including the application of “inverse condemnation” that may threaten the long-term fiscal health of our utilities.

a. In your experience, what sort of utility-related costs come in the aftermath of wildfires or other natural disasters? Repair and restoration? Other damages and liabilities?

Answer: As Chairman McIntyre notes in his response to this question, the costs of repair or replacement of transmission facilities and liability for property damage in excess of recoveries provided by insurance are two of the most common types of expenses. The costs of vegetation management and initial insurance expenses to cover a utility from at least some of the liability associated with natural disasters are also costs that must be borne by utilities. Additionally, it is also possible that a utility, either on its own or as directed by a regulatory agency, may incur additional costs or make new investments to better prepare its system or infrastructure to withstand future events.

b. I understand that in most cases, assuming the affected utility has acted prudently, then the utility may recover many of these costs through rates. Is that correct? Given the exorbitant costs associated with natural disasters, what would be the financial impact on utilities if they were unable to recover such costs in full or at least partially?

Answer: I agree with Chairman McIntyre’s response to this question, which highlights the transmission ratemaking mechanisms that are available to recover prudently incurred costs for restoration and repairs, less any recoveries already provided by insurance policies. As Chairman McIntyre notes, in 2014, San Diego Gas & Electric Company recovered $23.3 million in wildfire costs through Commission-jurisdictional transmission rates.

As to the financial impact to utilities in the event such costs could not be recovered, I agree that it would vary on a case-by-case basis, but ultimately, if costs cannot be recovered from customers, it is the utility’s shareholders that would bear the burden.

c. Is there a correlation between the fiscal health of a utility and the reliable service it is able to provide its customers? Similarly, is there a correlation
between the fiscal health of a utility and its ability to build a stronger, more resilient power grid?

**Answer:** As Chairman McIntyre notes, there are certain threshold requirements (e.g., relevant reliability standards) that apply to all entities registered with NERC regardless of fiscal health. However, it is possible that financial hardship could present an additional challenge to a utility or other registered entity as it seeks to comply with applicable requirements.

d. Specific to FERC-jurisdictional facilities, assets, and rates, what ratemaking mechanisms or tools does FERC have in place to allow for consideration of recovery of costs for damages prudently incurred from natural disasters?

**Answer:** I agree with Chairman McIntyre’s response to this question, which highlights the Commission’s transmission ratemaking mechanisms and notes that even non-routine costs, such as those incurred in response to emergencies, can be accounted for in utility rates.

The Honorable Paul Tonko

**Question 1: Natural Gas Exports and Public Benefit**

The energy landscape has changed dramatically since FERC issued its 1999 policy for certifying natural gas pipeline projects. The U.S. Energy Information Administration’s latest long-range projections anticipate liquefied natural gas (LNG) exports to grow significantly, so it seems reasonable to assume exports will play an increasing role in future gas infrastructure demand.

a. Will FERC’s review of its 1999 policy statement consider the role of LNG exports when determining whether a proposed project is required by the public convenience and necessity?

**Answer:** I agree with Chairman McIntyre’s answer to this question.

b. Should pipeline expansions that are intended to boost consumption overseas constitute a public benefit, particularly for those projects that require the use of federal eminent domain authority to take private property?

**Answer:** I agree with Chairman McIntyre’s answer to this question.

c. Do you believe it is possible, and would it be appropriate, for FERC to differentiate between domestic needs versus foreign exports when determining if a project is required by the public convenience and necessity?

**Answer:** I agree with Chairman McIntyre’s answer to this question.
May 7, 2018

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

Dear Commissioner Glick:

Thank you for appearing before the Subcommittee on Energy on Thursday, April 17, 2018, to testify at the hearing entitled “Oversight of the Federal Energy Regulatory Commission and the FY2019 Budget.”

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. Also attached are Member requests made during the hearing.

To facilitate the printing of the hearing record, please respond to these questions and requests with a transmittal letter by the close of business on Monday, May 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Kelly.Collins@mail.house.gov.

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

Sincerely,

Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachments
OFFICE OF THE COMMISSIONER

May 21, 2018

The Honorable Fred Upton, Chairman
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Upton:

Thank you for the opportunity to appear before the Subcommittee on Energy on
Tuesday, April 17, 2018, to testify at the hearing entitled "Oversight of the Federal Energy
Regulatory Commission and the FY 2019 Budget." Enclosed are my responses to the
Supplemental Questions for the Record.

Sincerely,

Commissioner Richard Glick

Enclosure:
As Stated
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U.S. House Committee on Energy and Commerce, Subcommittee on Energy
April 17, 2018 Hearing: Oversight of the Federal Energy Regulatory Commission and the
FY2019 Budget
Questions for the Record Submitted to the Honorable Richard Glick

The Honorable Fred Upton

**Question 1:** FERC has long held that it “does not pick winners or losers” regarding the fuels for generating electricity -- rather FERC’s role is to promote competition through market mechanisms.

a. How does this philosophy square with the fact that some generators have characteristics or attributes (e.g., onsite fuel) that allow them to provide additional value in terms of reliability or resilience?

**Answer:** As you note, the Commission does not favor specific electric generation technologies. Instead, the Commission generally relies upon markets to promote competition to ensure that jurisdictional electric rates and service meet the requirements of the Federal Power Act. One important aspect of promoting competition is removing barriers to entry so that all resources can compete in the wholesale markets to provide a defined service. As a result, although different resource types can have different attributes, they can compete to provide a comparable service to the grid. I have yet to see any evidence to suggest that grid reliability or resilience is endangered because resources are not being compensated for certain characteristics or attributes.

**Question 2:** FERC does not have the authority to mandate that a certain amount of power be generated by resources. In response to various legislative efforts to support nuclear generation, the industry is debating whether individual state actions are harming the efficient operation of the organized wholesale electricity markets. States including New York and Illinois have enacted or legislation that would protect “at-risk” nuclear generation units from closure due to their inability to compete economically in a competitive market.

a. Litigation is currently underway in the U.S. Court of Appeals (2nd & 7th Circuits regarding the lawfulness of these subsidies. Will FERC assist the Court in providing its views (as requested by the Court)?

b. Do you or FERC have a position the appropriateness of these credits?

**Answer:** The U.S. Court of Appeals for the Seventh Circuit has invited the United States to file a brief in litigation with respect to the Constitutionality of the Illinois Zero Emissions Credits (ZECs) program. As Chairman McIntyre notes, “In light of the court’s invitation, FERC staff is working with the Department of Justice, which plans to file the requested brief.” In my opinion, the Federal Power Act reserves for the states the responsibility to oversee a utility’s generation resource mix and FERC should respect state decisions. It is not for FERC to second-guess whether a particular state resource decision is “appropriate” as long as the state action is not preempted by the Federal Power Act.

**Question 3:** In July 2011, FERC issued Order 1000 – a landmark rule designed to increase regional transmission development by non-incumbent utilities and foster competition for innovative and cost-effective projects. However, after more than 6 years, few new transmission projects can be directly attributed to Order No. 1000 and a recent FERC staff report admitted that “[i]t is difficult to assess whether the industry is investing in sufficient
transmission infrastructure to meet the nation’s needs and whether the investments made are more efficient or cost-effective.”

a. What are the Commissions views on this rule? Should it be reexamined?

Answer: I believe that the Commission should continue to examine whether Order No. 1000 is achieving its stated goals. That review should include whether the existing transmission planning processes are working adequately to develop large, regional, and interregional transmission facilities. In addition, the Commission should examine whether those processes are inadvertently providing incentives for incumbent transmission owners to build smaller, localized projects in order to avoid developing facilities that may be subject to competition.

I also believe that it is time to review the Commission’s transmission incentives policy. In 2005, Congress enacted section 219 of the Federal Power Act, which, among other things, requires the Commission to develop an incentives-based policy for promoting transmission investment. In my opinion, the Commission should revisit its incentives policies adopted pursuant to section 219 to ensure that the Commission is actually incentivizing needed investment.

Question 4: Each of the RTOs/ISOs employ a market monitor to oversee the activities of the markets, but each of them has a different structure. Some RTOs contract with an independent entity to serve this role (e.g., PJM and MISO), while others rely on an internal monitor (e.g., Southwest Power Pool and CAISO) and others have both an internal monitor and an external independent monitor (e.g., ISO-New England and New York ISO).

a. After 20 years of experience with market monitors in the organized markets, there remains a good deal of confusion regarding the role of the monitors, which type of monitoring structure works best, and who the market monitor is ultimately responsible to.

i. What are your thoughts on the role of the market monitor? Are any changes necessary?

Answer: The market monitors, both internal and external, serve a critical role in organized markets. As Chairman McIntyre notes in his response to this question, in Order No. 719 the Commission determined that a market monitor has three core functions: (1) evaluating the effectiveness of existing and proposed market rules, tariff provisions, and market design elements and recommending proposed changes “not only to the RTO or ISO, but also to the FERC’s Office of Energy Market Regulation staff and to other interested entities such as state commissions and market participants”; (2) reviewing and reporting on market performance; and (3) referring the suspected wrongdoing of market participants and RTOs/ISOs to the Commission’s Office of Enforcement. I believe that to effectively carry out these core functions, any market monitor must be able to provide independent oversight.

The Honorable John Shimkus
Load Serving Entity Rights; FPA §217(b)(4):

**Question 1:** Section 217 (b) (4) of the Federal Power Act directs FERC to exercise its authority to facilitate the planning and expansion of the transmission grid to meet the reasonable needs of Load Serving Entities, and enable utilities with an obligation to serve to secure firm transmission rights for their long term power supply arrangements. In your opinion, what is the extent of FERC’s obligation to ensure that Congress’ directive with regard to firm transmission rights for long-term power supply arrangements is met?

**Answer:** As Chairman McIntyre notes, the United States Court of Appeals for the District of Columbia Circuit has held that section 217(b)(4) docs not create a general preference for load-serving entities in all contexts and that the section would be violated only if the Commission were to exercise its authority in a manner that is at odds with the needs of load-serving entities. The Commission will continue to exercise its authority under section 217(b)(4) consistent with that reading of the Federal Power Act.

Ownership of Transmission Assets:

**Question 2:** The Commission has, on several occasions, expressed strong support for Joint Ownership of transmission, noting that it has proven to be a model that gets transmission built quickly, efficiently and at low cost. In its November 15, 2012 Policy Statement on transmission incentives, the Commission “encourage[d] incentives applicants to participate in joint ownership arrangements and agrees ... that such arrangements can be beneficial by diversifying financial risk across multiple owners and minimizing siting risks included,” but this statement has not spurred additional joint ownership arrangements. If it can be established that the joint ownership model of transmission ownership results in a more robust grid, should the Commission do more to actively promote joint ownership arrangements involving public power entities? Why or why not?

**Answer:** As you indicated, transmission incentives are in place for joint ownership. I am open to better understanding why these incentives have not led to much jointly owned transmission as part of a comprehensive review of the Commission’s transmission incentive policies.
The Honorable Richard Hudson

**Question 1:** As you know, FERC is litigating a number of enforcement cases in federal district court and several of these cases involve virtual trading in the electricity markets. While some suggest that virtual trading allows utilities to hedge against price volatility and congestion, others have argued that virtual transactions are not being used as intended, resulting in profits to traders without adding any commensurate benefit and a decline in the performance of the markets.

a. Since there is a track-record of market manipulation involving virtual products, does FERC have any plans to review its existing policies regarding virtual trading in RTO markets?

**Answer:** We have a responsibility under the Federal Power Act to ensure that jurisdictional rates are just and reasonable. I believe that competitive markets can produce just and reasonable rates, but only if they are truly competitive, which means that they must not be subject to manipulation. We must do everything we can to prevent manipulation of any jurisdictional transaction, including virtual transactions. As Chairman McIntyre explains, the Commission continually monitors these markets through its market surveillance program. Additionally, there is a referral process for market monitors and other market participants to provide referrals to the Office of Enforcement if they believe that manipulation is occurring. Protecting against market manipulation is a critical function of the Commission and I will continue to work with my colleagues and Commission staff to protect against the manipulation of markets, including from virtual transactions.
The Honorable Scott Peters

Question 1: I assume you’re familiar with the plight of California customers and utilities given our State’s recent devastating wildfires, including the application of “inverse condemnation” that may threaten the long-term fiscal health of our utilities.

a) In your experience, what sort of utility-related costs come in the aftermath of wildfires or other natural disasters? Repair and restoration? Other damages and liabilities?

Answer: Wildfires, especially in the West can have a devastating impact on the electric grid. Unfortunately, as a result of climate change, the West is likely to experience wildfires that are more frequent and more extreme. In the aftermath of wildfires or other natural disasters, I would imagine that the utility-related costs would include the repair and replacement of damaged transmission facilities as well as damages associated with the loss of power to business and residential customers and potentially injury and loss of life.

b) I understand that in most cases, assuming the affected utility has acted prudently, then the utility may recover many of these costs through rates. Is that correct? Given the exorbitant costs associated with natural disasters, what would be the financial impact on utilities if they were unable to recover such costs in full or at least partially?

Answer: Pursuant to the Federal Power Act, the Commission has jurisdiction only over interstate transmission facilities and wholesale electric transactions. A significant part of the damage associated with a wildfire involves the distribution grid and retail service, which are subject to the jurisdiction of state public utility commissions, not FERC. However, FERC has permitted transmission-owning utilities that incurred costs associated with jurisdictional facilities to recover those costs if they are prudently incurred. As Chairman McIntyre notes, in 2014, San Diego Gas & Electric Company recovered $23.3 million in wildfire costs through FERC-jurisdictional transmission rates. If a utility is unable to pass costs to ratepayers, the financial responsibility would be borne by the utility’s shareholders.

c) Is there a correlation between the fiscal health of a utility and the reliable service it is able to provide its customers? Similarly, is there a correlation between the fiscal health of a utility and its ability to build a stronger, more resilient power grid?

Answer: There is not necessarily a correlation between fiscal health and a utility making sufficient investments in its system to provide reliable and resilient service. All utilities are required to comply with relevant reliability standards, regardless of fiscal health. But, it may be more expensive for a utility experiencing fiscal difficulties to raise the capital necessary to make these investments and that might lead to higher rates for consumers.
d) Specific to FERC-jurisdictional facilities, assets, and rates, what ratemaking mechanisms or tools does FERC have in place to allow for consideration of recovery of costs for damages prudently incurred from natural disasters?

**Answer:** The Federal Power Act requires that the Commission allow electric utilities to recover just and reasonable rates. If a competitive market exists, such as for wholesale power in some circumstances, that rate can be established through a market mechanism. If the rate is for transmission, we generally permit a utility to recover its prudently incurred costs plus a reasonable rate of return on its investment in those transmission facilities.
The Honorable Paul Tonko

Natural Gas Exports and Public Benefit

Question 1: The energy landscape has changed dramatically since FERC issued its 1999 policy for certifying natural gas pipeline projects. The U.S. Energy Information Administration’s latest long-range projections anticipate liquefied natural gas (LNG) exports to grow significantly, so it seems reasonable to assume exports will play an increasing role in future gas infrastructure demand.

a) Will FERC’s review of its 1999 policy statement consider the role of LNG exports when determining whether a proposed project is required by the public convenience and necessity?

Answer: The responsibility for authorizing the export of natural gas, including LNG, is within the Department of Energy’s jurisdiction rather than FERC’s. FERC’s role with respect to LNG exports is limited to ensuring that the facilities used for export are in the public interest and, as such, will not harm the public safety or the environment. That said, I believe the Commission should consider the end use of the natural gas to be transported when determining whether a proposed pipeline facility designed to bring natural gas to an export facility is required by the public convenience and necessity and I understand this issue is included in the scope of the Commission’s recent notice of inquiry regarding the 1999 policy statement.

b) Should pipeline expansions that are intended to boost consumption overseas constitute a public benefit, particularly for those projects that require the use of federal eminent domain authority to take private property?

c) Do you believe it is possible, and would it be appropriate, for FERC to differentiate between domestic needs versus foreign exports when determining if a project is required by the public convenience and necessity?

Answer: We take a variety of factors into account in determining whether a proposed pipeline or pipeline expansion is in the public interest. I believe one of those factors should be the intended use of natural gas to be transported by the proposed pipeline.
During the hearing, I committed to Congressman Kennedy that I would supplement the record with information detailing how often, pursuant to Section 205 of the Federal Power Act, a rate has taken effect by operation of law because the Commission failed to act on the proposal within the statutory time period—generally 60 days after a proposal for a new rate or tariff change is filed.

Commission staff research indicates that, in the last fifteen years, a proposed rate has taken effect pursuant to the Federal Power Act's operation-of-law provisions five times. My understanding is that in two of those five instances, that outcome resulted from a 2-2 split within the Commission.