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OVERSIGHT OF FERC: ENSURING ITS ACTIONS BENEFIT CONSUMERS AND THE ENVIRONMENT

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

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OVERSIGHT OF FERC: ENSURING ITS ACTIONS BENEFIT CONSUMERS AND THE ENVIRONMENT

WEDNESDAY, JUNE 12, 2019

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

The subcommittee met, pursuant to call, at 10:30 a.m., in room 2322, Rayburn House Office Building, Hon. Bobby L. Rush (chairman of the subcommittee) presiding.

Members present: Representatives Rush, Peters, Doyle, Sarbanes, McNerney, Tonko, Loebsack, Butterfield, Welch, Schrader, Kennedy, Veasey, Kuster, Barragán, O'Halleran, Blunt Rochester, Pallone (ex officio), Upton (subcommittee ranking member), Latta, Rodgers, Olson, McKinley, Kinzinger, Griffith, Johnson, Flores, Walberg, Duncan, and Walden (ex officio).

Also present: Representative Long.

Staff present: Jeffrey C. Carroll, Staff Director; Adam Fischer, Policy Analyst; Waverly Gordon, Deputy Chief Counsel; Omar Guzman-Toro, Policy Analyst; Rick Kessler, Senior Advisor and Staff Director, Energy and Environment; Brendan Larkin, Policy Coordinator; John Marshall, Policy Coordinator; Elysa Montfort, Press Secretary; Lisa Olson, FERC Detailee; Alivia Roberts, Press Assistant; Tim Robinson, Chief Counsel; Tuley Wright, Energy and Environment Policy Advisor; Justin Discigil, Minority Press Secretary; Theresa Gambo, Minority Financial and Office Administrator; Peter Kielty, Minority General Counsel; Ryan Long, Minority Deputy Staff Director; Mary Martin, Minority Chief Counsel, Energy, and Environment and Climate Change; Brandon Mooney, Minority Deputy Chief Counsel, Energy; Brannon Rains, Minority Legislative Clerk; and Peter Spencer, Minority Senior Professional Staff Member, Environment and Climate Change.

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

Mr. RUSH. I am going to call the subcommittee to order. And the Chair recognizes himself for 5 minutes for the purposes of an opening statement. And I want to begin by thanking all of the FERC Commissioners for appearing before the subcommittee this morning for the purposes of discussing critical issues related to the governance of the Nation's electric grid.

In the last oversight hearing this subcommittee held last year, I made it clear that I did not support FERC putting its proverbial thumb on the scale to ambiguously prop up coal and nuclear facilities as the 2017 DOE Notice of Proposed Rulemaking proposed. In that same hearing, I also stated that elected officials in the States should have the authority to choose the type of energy sources within their own portfolios and that would mostly benefit their own constituents.

To this point, we are seeing my home State of Illinois as a national leader in enacting legislation to promote renewables and nuclear power as safe and reliable and carbon-free sources of energy. And the bipartisan Future Energy Jobs Act, which was passed in 2016, along with a more recent proposal by Governor Pritzker of Illinois, will move my State towards a cleaner, greener, more sustainable energy future. And I for one do not want to see FERC stand in the way of that progress.

Why don't you all come on in, please.

Mr. UPTON. Maybe we should take the Judiciary Committee's room and swap them. What do you think?

Mr. RUSH. Well, let's take the Judiciary's jurisdiction and when we take their room? All right.

You all please come on in so they can close the door, all right.

The bipartisan Future Energy Jobs Act that was passed in 2016, along with a more recent proposal by the Governor of Illinois, Pritzker, will move my State forward towards a cleaner, greener, more sustainable energy future. And I do not want to see FERC stand in the way of that progress. However, FERC's ruling on PJM capacity market will undo this historic progress and make it harder to achieve my State's energy goals.

It is extremely important that the Commission wants to unveil a market structure that allows for individual States to make decisions regarding the makeup of their particular portfolios, energy portfolios, that helps to address climate change, provides reliable energy, and keeps prices affordable.

One of the biggest challenges facing FERC is how to integrate more renewable energy and distributing energy resources into the grid and putting them on the road to help accomplish these goals. Consumers are demanding this type of change, and it is important that FERC works as a partner to make this happen, rather than as another obstacle standing in the way.

I applauded the Commission's storage and distributed energy resources, DER, Notice of Proposed Rulemaking issued back in November 2016, and Order 841 issued in February 2018 directing RTOs and ISOs to upgrade and update market rules so that storage could participate. However, we are now in 2019, and it is past time now for the Commission to issue a final decision on this particular issue.

I look forward today to engaging FERC on these important issues, including allowing States to dictate every energy portfolio that they deem would be beneficial to their constituents, allowing more States to integrate more renewables into the grid through transmission and finding a way for distributed energy resources to participate in capacity markets and making sure that consumers' voices are heard and respected throughout the RTOs.

How the Commission moves forward is utterly important.I21[The prepared statement of Mr. Rush follows:]

PREPARED STATEMENT OF HON. BOBBY L. RUSH

I want to thank all of the FERC Commissioners for appearing before the subcommittee this morning to discuss critical issues related to the governance of the Nation's electric grid.

In the last oversight hearing this subcommittee held last year, I made it clear that I did not support FERC putting its thumb on the scale to ambiguously prop up coal and nuclear facilities as the 2017 DOE NOPR proposed.

In that same hearing I also stated that elected officials in the States should have the authority to choose the type of energy sources within their portfolios that would most benefit their constituents.

To this point, we have seen my home State of Illinois act as a national leader in enacting legislation to promote renewables and nuclear power as safe, reliable, carbon-free sources of energy.

The bipartisan Future Energy Jobs Act, passed in 2016, along with more recent proposals by Governor Pritzker, would move my State towards a cleaner, greener, more sustainable energy future, and I do not want to see FERC stand in the way of that progress.

However, FERC's ruling on the PJM capacity market would undo this historic progress and make it harder to achieve my State's clean energy goals.

It is extremely important that the Commission works to unveil a market structure that allows for individual States to make decisions regarding the makeup of their energy portfolios that helps to address climate change, provides reliable energy, and keeps prices affordable.

One of the biggest challenges facing FERC is how to integrate more renewable energy and distributed energy resources into the grid and putting forth rules of the road to help accomplish these goals.

Consumers are demanding this type of change and it is important that FERC works as a partner to make this happen, rather than as another obstacle standing in the way.

The Commission must make sure that consumer voices are heard throughout the regional transmission organizations and that the interests of the public are protected through the agency's decisions.

I applauded the Commission's Storage and Distributed Energy Resource (DER) Notice of Proposed Rulemaking (NOPR) issued back in November 2016, and Order 841 issued in February 2018, directing RTOs and ISOs to update market rules so that storage could participate.

However, we are now in June 2019, and it is past time for the Commission to issue a final decision on this issue.

So I look forward to engaging with the Commissioners on these important issues, including allowing States to dictate energy portfolios that benefit their constituents, integrating more renewables into the grid through transmission, finding a way for distributed energy resources to participate in the capacity markets, and making sure that consumer voices are heard and respected throughout the regional transmission organizations.

How the Commission moves forward on each of these issues will have a dramatic impact on the Nation's energy portfolio and our ability to combat climate change moving forward and I will be watching closely to how the agency responds to each of these issues.

Now, let me recognize my friend and colleague from Michigan, Ranking Member Upton, for his opening statement.

Mr. RUSH. And I want to now yield 5 minutes to my friend from Michigan, the ranking member, for his opening statement.

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

Mr. UPTON. Well, thank you, Mr. Chairman. And this is an important hearing to examine FERC's budget and priorities for fiscal year 2020. I want to extend a warm welcome to all of our Commissioners. It has been about a year since FERC testified before the

committee, and in that time the Commission has dealt with its share of challenges, and certainly the change in leadership due to the passing of former Chairman McIntyre. A good guy by all accounts.

Chairman Chatterjee has performed admirably, that is for sure, stepping back into the role of Chairman of FERC. The Commission also has received a new member, Commissioner Bernard McNamee—welcome—who brings a wealth of experience in State and Federal energy policy matters.

You know, as members of the Energy and Commerce Committee, we are closely monitoring the shifts occurring across our energy landscape, so that we are prepared to confront the challenges and take full advantage of the opportunities that lay ahead. Under my chairmanship of the full committee and continuing under Chairman Walden, we have worked on a bipartisan basis to remove unnecessary barriers to growth, streamline the path for the permitting process for energy projects, and encourage innovation and technological development, and I know that will continue under Chairman Pallone and Chairman Rush.

FERC has many important responsibilities to help us navigate the changes that we are seeing with our generation resources mix and to ensure the resilience and security of our energy systems, including the import-export terminals, natural gas pipelines, and electric transmission facilities. FERC has also had a responsibility to oversee energy markets, ensure just and reasonable rates, advise on State energy policies, and oversee the development of mandatory electric reliability, and security standards for the bulk power system.

As we have learned, managing this wide array of issues is no simple task. Building new pipelines and electric transmission facilities has become increasingly challenging. And while FERC as the lead agency has established a process to allow for thorough environmental reviews and meaningful stakeholder input, we have started to see this process strained by States that are not performing their federally delegated responsibilities in perhaps a timely fashion.

We are also seeing big changes on the generation side with the decline of coal and nuclear coinciding with the rise of natural gas and renewables, which is placing pressure on State and regional resource planning. Many of the issues we discussed at our hearing last year are still actively under consideration at FERC, including fuel security and grid resiliency, grid storage, pipeline permitting, and market reforms.

I look forward to today's hearing to receive an update on progress in these areas. I also look forward to discussing physical and cyber security for our grid and pipeline network, which is an issue that all of us care deeply about. While FERC has authority to approve mandatory cybersecurity reliability standards for the bulk power system, the regulatory framework for pipelines may have gaps that should be examined. Given the interdependency of our gas pipelines and the electric systems, we need to make sure that we are doing everything that we can do to remain secure.

The last point: I would ask unanimous consent that Mr. Long from Missouri be able to sit in—not a member of the subcommittee,

but obviously a member of the full committee—be able to sit in on this and be able to submit questions as well.

Mr. RUSH. Yes, seeing no objection, so ordered.

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

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Thank you, Mr. Chairman, for holding this hearing to examine FERC's budget and priorities for fiscal year 2020. I would also like to extend a warm welcome to our FERC Commissioners. It has been about a year since FERC testified before the Committee, and in that time, the Commission has dealt with its share of challenges, and sadly, a change in leadership due to the passing of former Chairman Kevin McIntyre.

By all accounts, Chairman Chatterjee has performed admirably, stepping back into the role of Chairman of FERC. The Commission has also received a new member, Commissioner Bernard McNamee, who brings a wealth of experience in State and Federal energy policy matters.

As members of the Energy and Commerce Committee, we are closely monitoring the shifts occurring across our energy landscape, so that we are prepared to confront the challenges and take full advantage of the opportunities that lay ahead.

Under my chairmanship of the full committee, and continuing under Chairman Walden, we have worked on a bipartisan basis to remove unnecessary barriers to growth, streamline the permitting process for energy projects, and encourage innovation and technological development. I hope that we can continue this important work under Chairman Pallone and Chairman Rush.

FERC has many important responsibilities to help us navigate the changes we are seeing with our generation resource mix, and to ensure the resilience and security of our energy systems, including import/export terminals, natural gas pipelines, and electric transmission facilities. FERC also has a responsibility to oversee energy markets, ensure just and reasonable rates, advise on State energy policies, and oversee the development of mandatory electric reliability and security standards for the bulk power system.

As we have learned, managing this wide array of issues is no simple task. Building new pipelines and electric transmission facilities has become increasingly challenging. While FERC, as the lead agency, has established a process to allow for thorough environmental reviews and meaningful stakeholder input, we have started to see this process strained by States that are not performing their federally delegated responsibilities in timely fashion. We are also seeing big changes on the generation side, with the decline of coal and nuclear coinciding with the rise of natural gas and renewables, which is placing pressure on State and regional resource planning.

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With that, I would like to thank the Commissioners for appearing before us today, I will yield back the balance of my time.

Mr. RUSH. I want to thank the gentleman for yielding back. Before I bring the chairman of the full committee on, I want to take a moment to introduce to those who are gathered here a very resourceful and very dedicated group of young people here from Illinois, including from my district. The Illinois Environmental Council is with us this morning, and they are here to advocate for 100 percent clean energy.

So please recognize them as they stand, the Illinois Environmental Council.

[Applause.]

Mr. RUSH. OK, thank you very much.

The Chair now recognizes the chairman of the full committee, Mr. Pallone, for 5 minutes.

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

Mr. PALLONE. Thank you, Chairman Rush. I would like to begin by thanking the Commissioners for being here today and for their collective work at the Federal Energy Regulatory Commission.

FERC's decisions and rulemakings have a large impact on our Nation's energy and environmental future. The Commission's activities directly affect electric and gas consumers across the United States, both the costs to ratepayers and the reliability of electric grid systems. They also affect the environment, particularly in the form of greenhouse gas emissions. And I am interested in learning how FERC intends to address greenhouse gas emissions in natural gas pipeline permitting approvals. To date, FERC's efforts to account for greenhouse gas emissions in the pipeline review process leaves much to be desired, in my opinion.

In 2017, the DC Circuit found in the Sabal Trail decision that FERC cannot ignore the indirect effects of projects it approves, including emissions from downstream use. And I know FERC has great analysts who are up to the task of accounting for greenhouse gas emissions, but they need to be empowered to ensure that these impacts are fully considered. This is particularly concerning, because FERC seems more than willing to approve any pipeline, even though the Natural Gas Act directs the Commission to only approve projects that are in the public convenience and necessity.

And I am also concerned that FERC looks at each pipeline project in a vacuum without regard to any other pipeline application. This could result in two pipelines running right next to each other. And I think we can all agree that it is just not a smart or responsible way of planning our system, particularly when people's private property could be taken by a pipeline company. The bottom line is that this whole process needs a more thoughtful strategy of planning and broad-ranging analysis.

On the electric side, it has been roughly 20 years since the implementation of wholesale markets. Though I had my doubts in the past, it is now clear that these markets have promoted competition in generation, ensuring lower prices and a reliable bulk power system. And this is good for consumers, and it has also been good for the environment. New technologies can deliver, store, manage, and reduce power needs with a near instantaneous response to dispatch signals.

And I would particularly like to applaud the Commission's work on Order 841, integrating storage resources into wholesale power markets. I look forward to hearing more about the distributed energy resource aspect of that effort. Innovation and technology are leading the way, and FERC can and should be a partner in that effort.

I also think it is important we look at Order 1000, which governs how transmission is planned and developed and how the costs are

allocated. Chairman Chatterjee recently said it was not working as intended, and I agree, particularly regarding consideration of nontransmission alternatives when looking at new system investments and interregional transmission planning, and I would like to hear about your plans to lead the Commission in addressing the shortcomings.

I also want to say that I am not happy with the way RTOs are assessing their transmission needs, and in my experience in New Jersey, it is potentially resulting in the construction of unnecessary projects. And, finally, we need greater scrutiny of wholesale capacity markets. Frankly, the current state of affairs is a mess, especially in the PJM market where New Jersey participates. PJM participants are currently left in the lurch of both an old and new capacity market design, and the result of this uncertainty is higher electricity bills. It is vital that we figure this out immediately.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

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FERC's decisions and rulemakings have a large impact on our Nation's energy and environmental future. The Commission's activities directly affect electric and gas consumers across the United States—both the costs to ratepayers and the reliability of the electric grid and system.

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This is particularly concerning because FERC seems more than willing to approve any pipeline even though the Natural Gas Act directs the Commission to only approve projects that are in the public convenience and necessity. I am also concerned that FERC looks at each pipeline project in a vacuum, without regard to any other pipeline application. This could result in two pipelines running right next to each other. I think we can all agree that's just not a smart or responsible way of planning our system—particularly when people's private property could be taken by a pipeline company.

The bottom line is that this whole process needs a more thoughtful strategy of planning and broadranging analysis.

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And with that I would like to yield the balance of my time.

Mr. PALLONE. So I have some time left, and I would like to yield the balance of my time to Mr. Kennedy.

Mr. KENNEDY. Mr. Chairman, I want to thank the chairman for yielding and thanks to the subcommittee for hosting this hearing and thank the Commissioners, everybody, for being here.

I would like to add one more area of focus to today's conversation and something that is particularly important to me: RTO governance and transparency into the stakeholder process in our wholesale markets. Focus on RTO governance is not only essential to good governance, but also critical to accountability. Too often, parties involved in the energy markets can just simply pass the buck and responsibility to others, but the result is often the same. Consumers end up paying more, and no one is held accountable.

I am not suggesting FERC is the sole responsible party here, but the Commission is invaluable in upholding the stability and reliability of a system when it works properly, and you are also the enforcers when the system breaks down. So I look forward and to continue to work with all of you on all of this, and I yield back the time to the chairman. Thank you.

Mr. PALLONE. And I yield back. Unless someone else wants the remaining time, I will yield back, Mr. Chairman.

Mr. RUSH. The Chair thanks the gentleman for yielding. The Chair now recognizes Mr. Walden, the ranking member of the full committee, for 5 minutes for the purposes of his opening statement.

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

Mr. WALDEN. Good morning, Mr. Chairman. I want to thank our witnesses for being here today, the Commissioners. We really appreciate the tough challenges you face. We have a couple of projects in Oregon that are under review at different levels, both State and Federal approvals, and I am observing that and watching that, and we appreciate what you do to allow public input on those projects. I think that is really an important part of this.

And so, we thank you and we recognize the tough challenges you face in trying to figure out what is best for the country. And to that point, you know, a lot has changed in the energy picture. We know that. I am old enough to remember when we thought we were going to run out of natural gas and oil, and we are all on watch for what do we do then? And now through innovation and technology we have discovered we can become a net exporter of energy and really lead the world, and we can do it in an environmentally smart way, and we can replace more polluting sources around the world if we can get our natural gas into markets.

We can also stick it to Putin, let me be direct and clear here. It is a geopolitical force as well. I have met with leaders of foreign countries who beg us—beg us—to get our natural gas into market so they have a competitor to Gazprom. And when natural gas does

get into the market, guess what, the prices go down and we quit funding Russia, or they do. So I think there are important international issues here as well that America needs to look at. They may not all be in your statutory process, but they are important for America going forward, and so I think that is an important piece.

We are on the breakthrough of major battery storage. I met with some folks from some of our national labs this morning about research they are doing to capture carbon, perhaps with a film that could capture carbon at $30 a ton, which would be remarkable if they are able to take it from a computer process into a reality in the marketplace, and we think about how transformative that could be to reduce carbon emissions and continue to provide baseload energy.

My region, hydropower. This committee did a lot of work on hydropower licensing for small scale. We believe in it. It is carbon free. It is there. It is an enormous resource, but we also need to make sure we have got transmission capacity. And I know you all focus on the grid, on its reliability and security and safety and adequacy. We do too. We try to address those issues. I would love to know more about the choke points in the country, you know, you have the Northeast heating oil issue.

We have situations where we are importing foreign gas into the Northeast, I think maybe even from Gazprom. And we have fights over transmission lines in the Northeast. We have fights over pipelines in the Northeast, and even access to America's great energy reserves there. I would love to know what that means to consumer prices. It is not my part of the world, but it is our country, and so I would love to know what that means for consumers when pipelines are blocked, power lines are blocked, and access to American energy is blocked. Does that make them pay more or less to keep their homes warm in the winter and cool in the summer?

So those are issues I think are important as we move forward on renewable energy development. We have a couple projects in my part of the world. Swan Lake, which is a closed loop hydro project. There is another one out of Goldendale where we can use surplus capacity from renewable energy to pump water uphill and then bring it back down through a hydro system and have a closed loop process. That is a great battery in and of itself. We have solar projects and we see the price of solar and wind coming down and being very competitive in the marketplace. And so, what I would love to hear from you is, what does the future look like? What is working, what is not? Where are the choke points in America, and what should we do about it? And then how safe and secure is the grid?

And I would tell you at the outset, we also have a surprise medical billing hearing going on with Mr. Pallone and my bill downstairs, so I will be coming and going, because that actually matters to consumers a whole bunch and oftentimes is much more expensive than their energy bill, so we are trying to fix that as well. But we thank you for the work that you are doing. We know it is tough, but it is very important.

[The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

Good morning and welcome to our FERC Commissioners. I look forward to today's hearing to examine FERC's budget proposal and priorities for the year ahead.

The Federal Energy Regulatory Commission plays an integral role in the safety, security, and economic prosperity of all Americans, given its responsibility for overseeing our Nation's energy infrastructure.

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.

As members of this committee know, the Nation's energy landscape continues to shift, driven by large increases in the domestic production of crude oil and natural gas, continued technological innovation, existing market and regulatory structures, and evolving consumer preferences.

The U.S. is becoming a net exporter of energy, with growing natural gas pipeline exports and LNG exports. We're also seeing big shifts in the fuels used to generate electricity, with coal and nuclear plants closing at a record pace, and a growing share of new natural gas power plants, and intermittent renewables such as wind and solar coming online—the long-term implications of which are yet to be fully understood. Meanwhile, energy efficiency continues to improve, keeping our consumption relatively flat, even though our economy continues to grow.

These broad trends present both challenges and opportunities. FERC is on the front lines of all of this, with an important mission to ensure safe, reliable, and secure energy for consumers.

As policymakers, we need to be realistic about the challenges we face. To maximize our Nation's energy abundance, we need to modernize and expand our infrastructure of pipelines and electric transmission facilities. We need new export capacity for our surplus energy supplies to keep our prices at home low and stable while improving the energy and security of our allies. We need to modernize our grid and examine the state of our energy markets to ensure consumers are benefiting. We also need to strengthen our protections against emerging cyber and physical threats to our energy infrastructure to ensure they remain resilient and reliable.

For these projects to get built, we need to make sure FERC has the tools it needs to carry out its regulatory responsibilities. The Commission already has a lot on its plate with the difficult task of coordinating a broad range of stakeholders and balancing a wide range of factors, such as property rights, environmental impacts, State and Tribal interests, and consumer protections.

In my home State of Oregon, we're dealing with these issues with the Jordan Cove LNG project and the Swan Lake closed loop hydro project. Being on the front lines, I can appreciate how complex the FERC process can be, and understand the importance of getting it right.

While the challenges may sound daunting, I am excited about the opportunities that lay ahead. As we modernize our infrastructure, we have the opportunity to integrate new technologies and services to benefit consumers. We are already seeing this with "smart grid" technologies that help deliver electricity more reliably and efficiently and restore power more quickly after an outage. I am also excited about ways to take advantage of the advances in digital and information technologies to provide consumers with greater control and choice when it comes to energy consumption.

With our 12-part "Powering America" hearing series in the last Congress, we took a close look at solutions to harden and modernize our energy infrastructure. I expect today's hearing will give Members another opportunity to explore these important issues. With that, I'd like to thank the Commissioners for appearing before us today, and I look forward to their testimony.

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

Mr. RUSH. The Chair wants to thank the ranking member for yielding back. And the Chair would like to remind Members that, pursuant to committee rules, all Members' written opening statements shall be made part of the record.

And now it is my privilege to introduce our panel of witnesses for today's hearing. The Honorable Neil Chatterjee is the Chairman

of FERC, and he is a witness—at the witness table today, and I certainly want to welcome the Chairman.

Next will be the Honorable Cheryl A. LaFleur, Commissioner for FERC. Then next to her is the Honorable Richard Glick, who is also a Commissioner at FERC. And last but not least, the Honorable Bernard L. McNamee, who is also a Commissioner. And I want to thank each and every one of you for appearing before us today, and we certainly want to congratulate you on your past accomplishments, and we look forward to hearing from your testimony at today's hearing.

And at this time, the Chair now wants to recognize each Member for 5 minutes to provide your opening statement. But as a part of what we do here, I would like to explain the lighting system, which you probably don't need any explanation for, but it is written here, and I am going to read it. In front of you is a series of lights. The light will initially be green at the start of your opening statement. The light will turn yellow when you have 1 minute remaining. Please begin to wrap up your testimony at the occasion of the yellow light. The light will turn red when your time has expired, and please conclude your statement, and then the light will turn to red.

Chairman Chatterjee, you are now recognized,. After being fully instructed on the lighting system, you are finally recognized for 5 minutes for the purposes of an opening statement.

STATEMENTS OF NEIL CHATTERJEE, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION, AND CHERYL A. LaFLEUR, RICHARD GLICK, AND BERNARD L. McNAMEE, COMMISSIONERS, FEDERAL ENERGY REGULATORY COMMISSION

STATEMENT OF NEIL CHATTERJEE

Mr. CHATTERJEE. Thank you, Chairman Rush, Ranking Member Upton, and members of the subcommittee. I really appreciate the opportunity to be here before you today to discuss the importance work that we are doing at the Federal Energy Regulatory Commission. As was mentioned, my name is Neil Chatterjee and I am the Chairman of FERC. I appreciate the subcommittee's attention to the major energy issues facing our Nation and the role that FERC plays in addressing those issues for the American people.

This is an exciting and transformational period for our Nation's energy landscape. I take very seriously the responsibility to work with my colleagues to ensure that all Americans have reliable and affordable energy supplies. Today, I will focus my remarks on two of my priorities: the Commission's efforts to allow for storage resources to better participate in the wholesale electric markets, and our focus on the importance of security measures to protect from cyber and physical threats to the Nation's bulk power system. I will also address FERC's efforts to reform our regulations under the Public Utility Regulatory Policies Act of 1978, or PURPA, an issue I know many of you have been following closely.

Over the last decade or more, our country has seen many changes in the energy industries that FERC regulates. As such, it is essential for FERC to remain vigilant about these changes and respond to them in ways that enhance competition in the electricity markets, support the resilience of the bulk power system, and

lower costs to consumers. One of these recent transformations we have seen is the improvement in electric storage technologies. I want to highlight the Commission's work, which I am extremely proud of, regarding the participation of electric storage resources in wholesale electricity markets as an example of how FERC is responding to our ever-evolving energy landscape.

Traditionally, a variety of factors have created challenges to storage resources participation in the wholesale electric markets. Because of this, in 2018 FERC issued Order 841 to remove barriers to the participation of electric storage resources in the capacity, energy, and ancillary services markets operated by the Regional Transmission Organizations and Independent System Operators.

FERC is now evaluating the December 2018 filings that RTOs and ISOs made to implement Order 841. As a result of this order, I expect an increase in the deployment of storage resources, which should result in greater reliability and lower prices for customers by enhancing competition. This is but one example of how FERC is proactively addressing shifts in the energy industries that we regulate and ensuring the emerging technologies can serve an integral role in wholesale electric markets.

In addition to our work to reduce barriers for storage resources, FERC is evaluating barriers to the participation of distributed energy resource aggregations in markets operated by RTOs and ISOs. Last year, FERC staff held a technical conference to gather more information regarding the participation of distributed energy resource aggregations in wholesale electricity markets as well as to discuss more broadly the potential effects of distributed energy resources on the bulk power system. FERC is currently considering the record as we determine how to move forward.

Another priority I would like to discuss today is cyber and physical security. As you are aware, America's critical infrastructure is increasingly under attack by foreign adversaries. The Department of Homeland Security and FBI have issued multiple public reports describing cyber intrusion campaigns by foreign government actors against our critical infrastructure, including the electric grid. Physical and cyber attacks on our critical infrastructure systems have the potential to create significant, widespread and potentially devastating effects that threaten the health, safety, and economic prosperity of the American people whom we serve. This evolving threat landscape demonstrates the importance of an unwavering focus on the security of the Nation's critical energy infrastructure.

Of course, these issues are of paramount concern to us all, including the subcommittee, and I appreciate the subcommittee's attention to this crucial subject, including efforts to examine legislative solutions like those that recently moved to the markup process. At FERC we have and continue to address cyber and physical security risks as consistent with section 215 of the Federal Power Act, which grants us the authority to approve and enforce mandatory Reliability Standards developed by the North American Electric Reliability Corporation.

We have also taken up voluntary initiatives with Federal, State, and industry partners. In 2018, FERC issued two significant order that improved bulk power system security. First, at our October 2018 Commission Meeting, we approved NERC's proposed reli-

ability standards to address supply chain threats. This action is particularly significant given that these specific threats to the energy sector continue to grow. Second, at our July 2018 Commission Meeting, we approved a final rule directing NERC to expand reporting requirements for critical systems. That final rule directed NERC to develop a standard that requires registered entities to report successful and attempted intrusions into critical systems to NERC's Electricity Information Sharing and Analysis Center as well as to DHS. NERC recently filed a new reliability standard to satisfy the directive, which is currently pending before the Commission.

But FERC does not just approve reliability standards. Since 2016, FERC has conducted audits of industry's compliance with cybersecurity reliability standards, the goal of which is not only to assess compliance with the reliability standards, but also to learn and share best practices.

Seeing that I am about to get the light, I am just going to say that it is time to bring PURPA into the 21st century. Major changes to PURPA should come from Congress, but we have some tools available to us at the Commission, and we are currently working to utilize those tools. Thank you.

[The prepared statement of Mr. Chatterjee follows:]

Written Testimony of Neil Chatterjee
Chairman
Federal Energy Regulatory Commission
Before the Subcommittee on Energy
Committee on Energy and Commerce
United States House of Representatives
June 12, 2019

Chairman Rush, Ranking Member Upton, 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 (FERC). My name is Neil Chatterjee, and I am the Chairman of FERC. I appreciate the Subcommittee's attention to the major energy issues facing our nation and the role that FERC plays in addressing those issues for the American people.

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Electric Storage

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This evolving threat landscape demonstrates the importance of an unwavering focus on the security of the nation's critical energy infrastructure. Of course these issues are of paramount concern to all of us, including the Subcommittee. I appreciate the Subcommittee's attention to this crucial subject, including efforts to examine legislative solutions like those that recently moved through the mark-up process.

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assess compliance with the Reliability Standards but also to learn and share best practices.

In addition to its work on the mandatory Reliability Standards, FERC's Office of Energy Infrastructure Security engages with partners in industry, states, and other federal agencies to address both cyber and physical security issues for critical energy infrastructure. These initiatives include, among other things, voluntary architecture assessments of interested entities, classified briefings for state and industry officials, and joint security programs with other government agencies and industry. The responsibility for securing critical infrastructure is shared by industry and government authorities at the federal and state levels, and it is imperative that we continue to strengthen these partnerships.

To that end, FERC and the Department of Energy held a joint technical conference on March 28, 2019, with federal, state, and industry officials, to discuss investment incentives for cyber and physical security. The conference considered current threats against energy infrastructure, best practices for mitigation, the adequacy of current incentives for investing in physical and cyber security protections, and cost recovery practices at both the state and federal level. I appreciate the broad engagement and interest we saw at this conference, and look forward to continuing to evaluate the testimony and comments we have received since then.

PURPA

Finally, I would like to mention our ongoing work with regard to revising our regulations under PURPA. The bulk of the Commission's PURPA regulations were enacted in the early 1980s. Since that time, PURPA has played an important role in the development of renewable technologies and the electric industry's transition to competitive markets. However, the energy landscape that existed when PURPA was

conceived more than four decades ago was fundamentally different from that of today. For example, solar and wind power were fledgling technologies, there was no open access to competitive wholesale electricity markets, and natural gas was in scarce supply. Yet, none of those statements ring true today. Moreover, many states have encouraged the development of renewable generation through renewable portfolio standards, and Congress adopted the Production Tax Credit to continue to advance renewable development.

Given these and other changes in the past 40 years, the Commission has undertaken a review of our regulations to ensure that FERC is fulfilling its obligations under PURPA. Although I cannot discuss the specifics of our internal deliberations on this matter, I will continue working with my colleagues to determine the best path forward on this issue.

Other Issues before FERC

While these are just a few of my top priorities, there are many other important issues before the Commission, which my fellow Commissioners LaFleur, Glick, and McNamee will address. Our work affects nearly every corner of America and every facet of our economy. So there is no shortage of tasks before us.

Again, I appreciate the opportunity to come before you today to discuss the work of the Commission. It is critical that we at FERC work together with other agencies as well as Congress to navigate the transformation of America's energy landscape, and I look forward to continuing this important dialogue. I am happy to answer any questions.

Mr. RUSH. I want to thank you, Chairman Chatterjee. You have passed the lighting test for this morning.

Now the Chair recognizes Ms. LaFleur for 5 minutes for the purposes of an opening statement.

STATEMENT OF CHERYL A. LaFLEUR

Ms. LAFLEUR. Thank you, Chairman Rush, Ranking Member Upton, Chairman Pallone, Ranking Member Walden, and members of the subcommittee. I am Cheryl LaFleur. I have been a Commissioner at FERC for almost 9 years, and I have been honored to appear before you several times.

Today I will comment on three major issues that are shaping our work. The first is resource selection in the Nation's competitive markets. In the 20 years since their creation, organized wholesale power markets have grown to serve more than two-thirds of Americans. These markets save customers money by dispatching resources over a large footprint, facilitating innovative technologies, and shifting investment risk from consumers to shareholders.

In recent years, markets have been roiled by low-cost gas generation and renewables. These lower-cost resources have significantly decreased wholesale prices to the benefit of customers, but have also threatened the financial viability of certain existing resources, particularly coal and nuclear plants. Many States have sought either to retain resources that are not thriving in the market or to support new resources that the market would not select. These efforts have triggered a debate about how wholesale market design should be adapted in response.

FERC is encouraging regional solutions to adapt capacity markets to State initiatives. We approved such a proposal for ISO New England, have an open proceeding to consider changes to the PJM market, and are watching New York ISO consider ways to use carbon pricing to incorporate State climate goals in its market structure.

Second, once we have selected resources, how do we pay for them? Until recently, it was accepted without question that electric power was priced on volume, since a major component of its cost was the fuel you had to burn to make it. With low gas prices, zero marginal cost renewables, and change in load curves, the traditional cost structures that supported resources may no longer work. We have seen this trend most famously with the so-called duck curve in California, where solar resources generate too much energy in the middle of the day and resources needed when the sun goes down are not making enough money to stay in business.

Similar trends are appearing in other regions. To help adapt, market operators and others are considering new ways to pay for power, with the focus not just on volume but on services such as ramping, scarcity pricing, reserves, and essential reliability services. FERC has also taken steps to ensure that new resources like storage can compete to provide these services.

Finally, infrastructure to deliver resources to customers. Electric transmission is needed to support the reliability of a changing grid, particularly for location-constrained renewables. The Commission's issuance of Order 1000 in 2011 anticipated the growing need for transmission. I believe the planning and cost allocation tenets of

Order 1000 are sound; however, the introduction of competitive transmission that it required has been much more difficult than anticipated. In addition, the growth of domestic natural gas and gas-fired generation has led to considerable build-out of the Nation's gas pipeline network. I have called for reconsideration of how FERC determines the needs for pipelines, looking at a regional look.

I also believe we must do a better job assessing the climate impacts of pipeline and LNG projects. Starting in 2016, FERC began disclosing more information on a project's climate impacts in our orders and environmental documents in response to the growing debate in our dockets. I strongly supported this decision. However, in May 2018, the Commission reversed course and elected to remove much of the greenhouse gas information from orders going forward.

Since June 2018, I have tried to reconcile my disagreement with the Commission's revised policy with my obligation to consider pipelines one by one under the Natural Gas Act. Where I otherwise conclude a pipeline is needed, I have done my own greenhouse gas calculation and analysis to weigh against the pipeline benefits. I believe the Commission, the public, and the regulated community would be better served if we proactively addressed these issues before the courts require us to do so.

It has been a tremendous honor to serve on FERC and to work with this committee. Thank you very much, and I yield my time to Commissioner Glick.

[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

June 12, 2019

Chairman Rush, Ranking Member Upton, Chairman Pallone, Ranking Member Walden, 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 nine years, and have appeared before the Subcommittee several times. Today, I will comment on three major issues that are shaping the Commission's work: (1) how individual states and regional electric markets select resources; (2) how those resources are compensated; and (3) how the Commission considers infrastructure decisions, particularly with respect to linear infrastructure like transmission lines and natural gas pipelines.

Wholesale Electric Power Markets and State Resource Decisions

In the twenty years since their creation, organized wholesale electric power markets have grown to serve over two-thirds of Americans. These markets save customers money by driving the efficient dispatch of resources over a large footprint, facilitate the introduction of innovative technologies and greater customer-side participation in the power supply, and, depending on the underlying state regulatory construct, shift investment risk from electricity customers to company shareholders. This committee has undoubtedly heard many concerns about the

challenges currently facing the organized markets, particularly in the eastern half of the country. However, I think it is important to note that, those concerns notwithstanding, participation in organized markets continues to expand, with utilities and states in the West and Southeast exploring integration into existing organized markets or the creation of new regional markets. Whatever their challenges, the benefits of organized markets are very real.

Recently, perhaps because of the challenges faced by the eastern markets, there has been significant debate over whether power markets are "real" markets. Frankly, this debate concerns me, as I have observed it often occurs in conjunction with arguments favoring intervention on behalf of particular types of resources, at the expense of economic efficiency and therefore customer benefits. All markets require regulation in order to be fair and effective; however, the real-time nature of electricity, which requires the balancing of load and supply second by second, leads to a more complex market than many others, and requires more comprehensive regulation to ensure its proper function. I believe the Commission, as the entity that has led the development and expansion of competitive electricity markets, should continue to support the use of competitive markets for resource dispatch and procurement as a cost-effective way to meet customer needs.

A major challenge before the Commission and the electric industry more broadly is the issue of resource selection – specifically, to what extent organized markets, rather than individual states, will drive investment decisions for resource entry, retention, or retirement. This issue is complex, particularly in states that restructured their retail electricity supply, given the divided regulatory responsibilities among the states, the organized markets, and the Commission.

Since their inception roughly two decades ago, the organized markets have efficiently deployed resources to achieve reliability at lowest cost, while effectively managing the integration of new resources and the retirement of existing resources. For vertically-integrated utilities participating in those markets, the states retained and exercised control of resource adequacy, generally through their integrated resource planning work. For states that restructured their retail electricity supply, however, utilities generally divested their generation resources to either standalone or affiliated merchant power companies. Over time, the eastern markets – PJM Interconnection, L.L.C. (PJM), the New York Independent System Operator (NYISO), and ISO New England, Inc. (ISO-NE) – created capacity markets to ensure resource adequacy through forward procurement of commitments by new and existing resources. Driven by the collective impact of the energy, capacity, and ancillary services markets, the resource fleet in those regions has transitioned from units exclusively built prior to the existence of the power markets to a combination of new and existing resources largely selected by the markets.

In recent years, however, power markets generally have been roiled by low gas prices and by the build-out of renewables that have different cost, operating, and geographic characteristics than traditional fuel-based generation. These lower cost resources have significantly decreased wholesale power prices, to customers' benefit, but have also threatened the financial viability of certain traditional resources, particularly coal and nuclear plants. In response to these changes, many states have sought either to retain resources that are not thriving in the market, or to accelerate the resource change by supporting new resources that the market would not otherwise procure.

For the PJM, NYISO, and ISO-NE markets that have relied on centralized capacity markets to meet resource adequacy needs, these efforts have created tension between the

operation of those markets and out-of-market support for particular resources. Notably, now that twenty years have passed since states restructured, the reasons that drove their decisions are before the professional memory and experience of many decision-makers. These efforts have triggered a debate over whether resource adequacy responsibilities in those regions are being, or should be, rebalanced towards greater state control, and how wholesale market designs should be adapted or overhauled in response.

In May of 2017, the Commission convened a two-day technical conference to discuss the intersection between state policies and wholesale electric power markets, including representatives from state commissions, regional market operators, and other stakeholders. In addition, regional market operators have been working to adapt market structures to accommodate state choices. For example, after the May 2017 technical conference, ISO-NE developed, and the Commission approved, the Competitive Auctions with Sponsored Policy Resources market reforms to balance state public policies with the competitive wholesale electricity market structures in the region. In addition, NYISO is currently considering ways to integrate carbon pricing into wholesale energy markets, which could provide an economically efficient way to incorporate state climate goals into the market structure. And, of course, the Commission has a significant open proceeding concerning proposed changes to the PJM capacity market.

Energy Pricing and Dispatch

The second major issue facing the Commission can be posed as a question: once we have selected the resources we need for the future – whether by market forces, integrated resource planning, or some combination – how do we price and dispatch them? Evidence from regions

throughout the country, in organized markets and bilateral market regions, indicates that a fundamental shift in how we procure and pay for energy is underway.

Until recently, it was accepted without question that electric power was priced on volume, since a major component of cost was the commodity cost of the fuel burned to generate it. Baseload, intermediate, and peaking resources each played a well-understood role in helping to balance load. However, data in recent years suggest that cost curves, which traditionally have identified baseload resources as the cheapest and peaking resources as the most expensive, now look differently in many areas. With persistently low natural gas prices, zero marginal cost renewable resources, and distributed energy resources changing the shape of load curves, the traditional cost structures that supported resources may no longer provide appropriate compensation. We have seen this trend most famously in California, where solar resources generate so much energy in the middle of the day that the state sometimes exports power during its historic peak hours, and large hydroelectric facilities in the West spill water rather than generating electricity at a loss. Gas plants that previously provided significant amounts of energy during the day have seen their capacity factors fall, with more revenue now coming from meeting the evening ramp or for occasional peaks in energy demand. This trend is now starting to appear in other regions around the country.

The nation's more dynamic resource mix presents opportunities for significant customer benefits, but also presents new challenges. I believe that we can and must meet these challenges, rather than trying to preserve the resource mix of the past. To help adapt to the new resource mix, regional market operators and others are considering new ways of paying for power, with a focus on services instead of volume. This change is visible in the energy and ancillary services markets, with services such as flexible ramping products, scarcity pricing, new forms of reserves,

and a greater attention to essential reliability services. In addition, some regions have revised their capacity markets to better ensure resource performance. The Commission and market operators have also taken steps to ensure that new resources, including storage, variable resources, demand response, and distributed energy resources, can compete to provide services that customers need. I expect that these efforts to evolve compensation structures and resource participation will continue to be a focus of the Commission's work in coming years.

Infrastructure

The final major issue I'd like to discuss also stems from changes in our nation's resource mix and our choices regarding how we generate electricity. Electric power markets are intended to signal when and where electricity is needed and, ideally, those signals translate into infrastructure decisions, including not just new generating facilities, but often the need for new transmission lines or natural gas pipeline capacity. However, when necessary infrastructure incentivized by market signals is not built, it impacts the market's ability to function as intended. There are real financial and reliability consequences to inaccurate or unrealized market signals.

Transmission is needed to facilitate the geographic spread of power generation, especially for location-constrained renewable resources. The Commission's issuance of Order No. 1000 in July of 2011 reflected and anticipated the growing need for regional and interregional transmission. I believe the planning and cost allocation tenets of Order No. 1000 are sound. However, the introduction of competitive transmission that it required has been slower and more difficult than anticipated and has arguably hurt transmission planning as incumbent transmission providers seek to invest in transmission projects not subject to the competitive processes required by Order No. 1000. While I am pleased to see many regions implementing their approved

transmission planning processes, I recognize that challenges remain, particularly with respect to the implementation of competitive processes for new regional transmission projects.

In addition, the growth in domestic natural gas production and gas-fired electric generation has led to considerable buildout of the nation's gas pipeline network. I have called for reconsideration of how the Commission determines the need for pipelines to reflect market conditions and assess on a regional basis whether more infrastructure can be supported for these long-lived assets.

I also believe the Commission must do a better job of assessing and considering the climate impacts of gas pipelines and liquefied natural gas (LNG) projects. Before determining whether a proposed pipeline project is in the public interest under the Natural Gas Act (NGA), the Commission must disclose and consider the project's environmental impacts under the National Environmental Policy Act (NEPA). By comparison, for LNG projects, the Commission must find that the proposed LNG export facility is not inconsistent with the public interest under the Natural Gas Act, while the Department of Energy (DOE), not FERC, considers the public interest regarding the export of the gas itself.

Starting in 2016, responding to the growing debate showing up in our dockets, the Commission began disclosing more information on a project's climate impacts in our orders and in our environmental documents. I strongly supported this decision and believe it was a good place for the Commission to start a more robust assessment of the climate impacts of new gas infrastructure. However, in May of 2018, the Commission elected to remove much of the greenhouse gas (GHG) quantification and consideration from orders going forward. I disagree with this decision and continue to advocate that the Commission undertake robust climate

analysis; specifically, quantifying, considering and assessing the significance of the direct, indirect, and cumulative GHG emissions from proposed projects.

Since June 2018, I have tried to reconcile my disagreement with the Commission's revised policy with my obligation to consider the merits of individual proposed pipelines under the NGA. Where I otherwise conclude that a pipeline is needed, I have done my own GHG calculation and analysis to weigh against the pipeline benefits and set out my thinking in separate concurring statements.

I will continue to consider and evaluate these issues as they arise in individual proceedings. However, I believe the Commission, the public, and the regulated community would be better served if the Commission proactively addressed these issues. If we do not, I expect that the courts, as they have already begun to do, will require the Commission to expand its climate analysis. Notably, any projects approved in the meantime will face significant legal risk that their certificates could be vacated.

I will continue to work to move forward on these issues as long as I am on the Commission, but that time is coming to an end later this year. It has been a tremendous honor to serve on the Commission and to work with this Committee. Thank you.

Mr. RUSH. Commissioner Glick, you are recognized for 5 minutes, and you have 30 seconds remaining from——

STATEMENT OF RICHARD GLICK

Mr. GLICK. Thank you, Commissioner LaFleur.

Thank you, Mr. Chairman, Ranking Member Upton, and members of the subcommittee, and thank you for the opportunity to testify this morning.

FERC has sometimes been referred to as a sleepy little agency, but the fact is that many of the actions we take have a significant impact on the everyday lives of Americans. The Commission is entrusted with protecting the public interest by regulating swaths of the U.S. energy industry. FERC's exercise of this responsibility has significant consequences for the prices of energy, the ability of public utilities to reliably and safely serve consumers and the environment.

The American electric sector is in the midst of a dramatic transformation to a less carbon-intensive, more distributed electric generation fleet. This transformation is good for consumers, the economy, and the environment. As the cost of newer, cleaner technologies continue to decline, consumers are seeing the benefits. The two fastest-growing occupations nationwide are solar PV installers and wind turbine service technicians, and more than 3 million American men and women now are employed in the clean energy industry in the United States. This clean energy transformation will also have a lasting positive impact on the environment and climate change.

Consumers are increasingly demanding that their energy comes from renewable or zero-emission sources, and businesses are delivering consumers what they want. Dozens of corporations, including some of the largest in the country, have announced or already achieved the goal of procuring all of their electricity needs from zero emissions or renewable resources. Although FERC is not a climate regulator, the Commission's actions have substantial consequences for climate change.

As Chairman Chatterjee mentioned a second ago, for example, many wholesale market roils that were designed for a grid composed mostly of conventional generation facilities can pose unintended barriers to newer technologies' full participation in wholesale markets. And by helping to create a level playing field for all resources, the Commission can indirectly facilitate newer technologies' participation in wholesale electric markets. Indeed, the Commission did just that earlier last year when it issued a final rule that requires RTOs and ISOs to eliminate barriers to the participation of electric storage resources in the wholesale electric markets.

The Notice of Proposed Rulemaking that led to the final rule on electric storage also proposed reforms to remove barriers to aggregated distributed energy resource participation in wholesale markets. The Commission in April 2018, conducted a 2-day technical conference to gather additional information on this matter. I believe the time has come for the Commission to also eliminate barriers to distributed energy resources.

The Commission's energy future, energy infrastructure permitting responsibilities can also affect emissions. FERC has authority over the licensing of certain hydroelectric facilities as well as the siting of interstate natural gas pipelines and facilities used to import or export liquefied natural gas. Under the Natural Gas Act, FERC must make a public interest determination before issuing a certificate for an interstate natural gas pipeline or an LNG facility. Because environmental effects factor directly into the public interest standard, the Commission must analyze the environmental impacts of a proposed interstate natural gas pipeline.

Unfortunately, the Commission has chosen to treat greenhouse gas emissions differently than all other aspects of its environmental reviews and, in my opinion, effectively ignored its statutory obligation to examine those emissions' impacts on the public interest. Indeed, last year, the majority of Commissioners announced a new policy that chose to ignore reasonably foreseeable upstream and downstream greenhouse gas emissions in almost all cases. This policy prevents the Commission from performing the public interest analysis that Congress required and the DC Circuit has told us that we have to do. Just last week, the DC Circuit admonished the Commission for this approach, and I hope to work with my colleagues to revisit the Commission's approach in light of the court's guidance.

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

[The prepared statement of Mr. Glick follows:]

Summary of Written Testimony of FERC Commissioner Richard Glick
Subcommittee on Energy
House Energy and Commerce Committee
June 12, 2019

The Federal Energy Regulatory Commission's (FERC or the Commission) exercise of its statutory responsibilities has significant consequences for subjects as diverse as the price of energy, the ability of public utilities to reliably and safely serve consumers, and the environment in which we live. The Commission's responsibility to eliminate barriers to wholesale electricity market competition, how FERC addresses state energy policies and their impacts on wholesale markets, and the Commission's energy infrastructure permitting responsibilities have particularly important consequences for greenhouse gas emissions and, consequently, for climate change.

Over the last decade, the Commission has taken a number of important steps to remove barriers to competition and ensure that new technologies and products can compete on a level playing field, including demand response resources, variable energy resources, and electric storage resources. I believe the time has come for the Commission to take similar action with regard to aggregated distributed energy resources. I also believe that the Commission must respect Congress's decision under the Federal Power Act to leave the states in charge of resource decision making. In the energy infrastructure permitting space, in my opinion, the Commission is ignoring its statutory mandates under the Natural Gas Act by refusing to analyze reasonably foreseeable greenhouse gas emissions associated with new interstate natural gas pipelines and facilities used to import or export liquefied natural gas. While the Commission is not a climate regulator, the potential climate consequences of the Commission's actions make it all the more important that the Commission faithfully execute its statutory mandates.

Written Testimony of FERC Commissioner Richard Glick
Subcommittee on Energy
House Energy and Commerce Committee
June 12, 2019

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

The Federal Energy Regulatory Commission (FERC or the Commission) has sometimes been referred to as a sleepy little agency. But the fact is that many of the actions we take have a significant impact on the everyday lives of Americans. FERC is entrusted with protecting the public interest by regulating significant swathes of the U.S. energy industry, including the wholesale sale and transmission of electricity, the transportation of oil and natural gas, and the permitting of several types of energy infrastructure projects. The Commission's exercise of this responsibility has significant consequences for subjects as diverse as the price of energy, the ability of public utilities to reliably and safely serve consumers, and the environment in which we live.

The American electricity sector is in the midst of a dramatic transformation to a less carbon-intensive, more distributed electric generation fleet that is increasingly customer-centric. The cost of renewable energy technologies, such as wind and solar, has fallen dramatically over the last few decades[1] and those declines are forecasted to continue in the years ahead.[2] The same is

[1] Lazard, *Levelized Cost of Energy Analysis—Version 12.0*, at 8 (Nov. 2018), https://www.lazard.com/media/450784/lazards-levelized-cost-of-energy-version-120-vfinal.pdf.

[2] Energy Innovation & Technology, LLC, *Renewable Electricity Levelized Cost of Energy Already Cheaper Than Fossil Fuels, and Prices Keep Plunging* (Jan. 22, 2018), https://energyinnovation.org/2018/01/22/renewable-energy-levelized-cost-of-energy-already-cheaper-than-fossil-fuels-and-prices-keep-plunging/.

true for battery storage[3] and distributed energy resources.[4] These reductions in price have resulted in a substantial increase in the deployment of these newer technologies. In three of the last four years, wind and solar have accounted for the majority of new electric generation capacity in the United State and that growth is expected to further accelerate in the years ahead.[5] Partly as a result of these trends, some regions of the country now, at times, produce a majority of their electricity from renewable resources.[6] In addition, electric storage in the United States is expected to be a $4.5 billion market and analysts anticipate there will be nearly 4 gigawatts of annual deployments by 2023.[7] Moreover, distributed energy resource capacity, such as that provided by rooftop solar panels, is projected to nearly double by 2024.[8] On top of these factors, the growth in zero-marginal cost generation and low natural gas prices are playing a significant

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[3] BloombergNEF, *Tumbling Costs for Wind, Solar, Batteries are Squeezing Fossil Fuels* (Mar. 28, 2018), https://about.bnef.com/blog/tumbling-costs-wind-solar-batteries-squeezing-fossil-fuels/.

[4] Herman K. Trabish, *Can the Price of Rooftop Solar Keep Falling?*, UtilityDive (Oct. 18, 2018), https://www.utilitydive.com/news/can-the-price-of-rooftop-solar-keep-falling/539612/. The Commission has defined distributed energy resources as resources interconnected through the distribution grid, including, for example, small batteries and rooftop solar systems. *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 157 FERC ¶ 61,121, at P 1 n.2 (2016) (Notice of Proposed Rulemaking).

[5] U.S. Energy Info. Admin., *Nearly Half of Utility-Scale Capacity Installed in 2017 Came from Renewables* (Jan. 10, 2018), https://www.eia.gov/todayinenergy/detail.php?id=34472; Michael Goggin et al., *Customer Focused and Clean: Power Markets for the Future*, Wind Solar Alliance 7 (2018), https://windsolaralliance.org/wp-content/uploads/2018/11/WSA_Market_Reform_report_online.pdf; U.S. Energy Info. Admin., *New Electric Generating Capacity in 2019 Will Come from Renewables and Natural Gas* (Jan. 10, 2019), https://www.eia.gov/todayinenergy/detail.php?id=37952.

[6] *See, e.g.*, Southwest Power Pool, *SPP 101: An Introduction to Southwest Power Pool* 124 (May 2019), https://www.spp.org/documents/31587/intro%20to%20spp.pdf (stating a maximum wind penetration in Southwest Power Pool of 67.3% on April 27, 2019); Jeff Zhou, *ERCOT Sets Record Wind Output and Penetration Rate Over the Holiday Weekend*, S&P Global Platts (Jan. 22, 2019), https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/012219-ercot-sets-record-wind-output-and-penetration-rate-over-the-holiday-weekend (stating a new record in the Electric Reliability Council of Texas of 56% of total demand served by wind energy on January 19, 2019); California ISO, *Monthly Renewables Performance Report April 2019*, http://www.caiso.com/Documents/MonthlyRenewablesPerformanceReport-Apr2019.html (last visited June 8, 2019) (listing the maximum five minute renewable serving load all-time record in the California Independent System Operator as 78.06%).

[7] Robert Walton, *US Storage Market to Reach 3.9 GW, $4.5B by 2023: Wood Mackenzie*, UtilityDive (Dec. 7, 2018), https://www.utilitydive.com/news/us-storage-market-to-reach-39-gw-45b-by-2023-wood-mackenzie/543779/.

[8] FERC Staff Report, *Distributed Energy Resources Technical Considerations for the Bulk Power System* Fig. 2 (Feb. 2018), https://www.ferc.gov/legal/staff-reports/2018/der-report.pdf.

role in the changing resource mix by putting downward pressure on wholesale electric rates and displacing aging, uneconomic facilities.[9]

This transformation in the American electricity sector is good for consumers, the American economy, and the environment. As the costs of newer, cleaner technologies continue to decline, consumers are increasingly seeing lower cost electricity.[10] And as more of these newer technologies are deployed, consumers are gaining more control over both the production and consumption of electricity. These changes are not only stimulating the American economy through direct electricity savings to American businesses, but also through significant job growth. The two fastest growing occupations nationwide are solar photovoltaic installers and wind turbine service technicians.[11] Nearly 3.3 million employees work in clean energy already.[12] Beyond the domestic impacts, the United States has a significant opportunity to lead the world in the development and deployment of clean energy technologies.

Perhaps most importantly, this clean energy transformation will have a lasting positive impact on the environment and climate change. The evidence that anthropogenic climate change is an existential threat to our way of life is incontrovertible. The Intergovernmental Panel on Climate Change recently concluded that global temperatures are on track to rise by 1.5°C by as early as

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[9] U.S. Dep't of Energy, *Staff Report to the Secretary on Electricity Markets and Reliability* (Aug. 2017), https://www.energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf; The Economist Intelligence Unit, *US Coal Plant Retirements to Continue* (Sept. 7, 2018), http://www.eiu.com/industry/article/1277120111/us-coal-plant-retirements-to-continue/2018-09-07.

[10] TXP, Inc. & IdeaSmiths LLC, *The Economic Value of Renewable Energy in Texas: Reducing Energy Costs for Customers* 2 (2018), https://static1.squarespace.com/static/5bc4a0d8e5f7d17e4e04af16/t/5bc643bef4e1fcb9bfccf4e7/1539720128210/Reducing+Energy+Costs+for+Customers.pdf; Joachim Seel et al., *Impacts of High Variable Renewable Energy Futures on Wholesale Electricity Prices, and on Electric-Sector Decision Making* vii (2018), http://eta-publications.lbl.gov/sites/default/files/report_pdf_0.pdf.

[11] U.S. Dep't of Labor Bureau of Labor Statistics, *Fastest Growing Occupations* Table 1.3 (Apr. 12, 2019), https://www.bls.gov/emp/tables/fastest-growing-occupations.htm.

[12] Silvio Marcacci, *Renewable Energy Job Boom Creates Economic Opportunity As Coal Industry Slumps*, Forbes (Apr. 22, 2019), https://www.forbes.com/sites/energyinnovation/2019/04/22/renewable-energy-job-boom-creating-economic-opportunity-as-coal-industry-slumps/#535c64de3665.

2030, a result that could present "irreversible" consequences.[13] The Trump Administration's most recent National Climate Assessment points out that we are already experiencing the impacts of climate change and indicates that, absent a dramatic reduction in greenhouse gas emissions, annual economic losses caused by climate change will reach into the hundreds of billions of dollars by the end of the century.[14] That figure does not reflect the potentially catastrophic consequences to human health and well-being[15] or the staggering degradation of the environment.[16]

The American people are far ahead of the federal government in demanding action on climate change.[17] Consumers are increasingly demanding that their energy come from renewable or zero-emissions sources. Numerous studies show that individual consumers place significant value on both the clean and renewable attributes of their electricity.[18] Businesses are recognizing this shift to a more customer-centric model and delivering consumers what they want. Dozens of corporations—including some of the largest in the country—have announced or already achieved a goal of procuring all of their electricity needs from zero-emissions or renewable resources.[19]

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[13] Intergovernmental Panel on Climate Change, *Special Report: Global Warming of 1.5°C* 6-7 (2018), http://www.ipcc.ch/report/sr15/.

[14] U.S. Global Change Research Program, *Fourth National Climate Assessment*, Summary Findings (2018), https://nca2018.globalchange.gov/.

[15] Nick Watts et al., *The 2018 Report of the Lancet Countdown on Health and Climate Change: Shaping the Health of Nations for Centuries to Come*, The Lancet (Nov. 28, 2018), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32594-7/fulltext.

[16] U.S. Global Change Research Program, *Fourth National Climate Assessment*, Ecosystems (2018), https://nca2018.globalchange.gov/; Chelsea Harvey, *Climate Change Is Becoming a Top Threat to Biodiversity*, E&E News (Mar. 28, 2018), https://www.scientificamerican.com/article/climate-change-is-becoming-a-top-threat-to-biodiversity/; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, *Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services* (May 6, 2019), https://www.ipbes.net/sites/default/files/downloads/spm_unedited_advance_for_posting_htn.pdf.

[17] David Roberts, *Utilities Have a Problem: the Public Wants 100% Renewable Energy, and Quick*, Vox (Oct. 11, 2018), https://www.vox.com/energy-and-environment/2018/9/14/17853884/utilities-renewable-energy-100-percent-public-opinion.

[18] *Id.*; Patty Durand, *Three Things Consumers Want From Electricity Providers*, UtilityDive (Apr. 10, 2018), https://www.utilitydive.com/news/three-things-consumers-want-from-electricity-providers-1/520821/.

[19] BloombergNEF, *Corporations Purchased Record Amounts of Clean Power in 2017* (Jan. 22, 2018), https://about.bnef.com/blog/corporations-purchased-record-amounts-of-clean-power-in-2017/; Int'l Renewable Energy Agency, *Corporate Sourcing of Renewables: Market and Industry Trends* 10 (2018), https://irena.org/-

For example, Anheuser-Busch recently announced that it will reach its 100 percent renewable electricity goal by 2021 (4 years earlier than its original commitment), brewing its entire portfolio of domestic beer brands from solar and wind power.[20] Proctor and Gamble similarly announced a goal of powering all of its plants with 100 percent renewable energy by 2030.[21] All told, corporate renewable energy procurement had a record year in 2018 and is now one of the chief factors driving growth in renewable energy.[22]

Although FERC is not a climate regulator, there is no question that the Commission's actions have substantial consequences for climate change. As discussed below, the Commission's responsibility to eliminate barriers to wholesale electricity market competition, how FERC addresses state energy policies and their impacts on wholesale markets, and the Commission's energy infrastructure permitting responsibilities have particularly important consequences for greenhouse gas emissions.[23]

The Commission has the responsibility pursuant to the Federal Power Act (FPA) to eliminate unjust, unreasonable, unduly discriminatory, and preferential barriers to wholesale market competition.[24] Many wholesale market rules were designed for a grid that was overwhelmingly composed of more conventional generation facilities with capabilities that differ in important respects from newer technologies, such as wind, solar, and battery storage. These market rules

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/media/Files/IRENA/Agency/Publication/2018/May/IRENA_Corporate_sourcing_2018.pdf; RE100, *Companies*, http://there100.org/companies (last visited June 8, 2019).

[20] Anheuser-Busch, *Anheuser-Busch is Going Solar: New Project Will Allow Company to Reach 100 Percent Renewable Electricity Goal* (June 4, 2019), https://www.anheuser-busch.com/newsroom/2019/06/world-environment-day-2019-/world-environment-day-2019.html.

[21] The Procter & Gamble Company, *P&G Announces New Environmental Sustainability Goals Focused on Enabling and Inspiring Positive Impact in the World* (Apr. 16, 2018), https://news.pg.com/press-release/pg-announces-new-environmental-sustainability-goals-focused-enabling-and-inspiring-pos.

[22] BloombergNEF, *Corporate Clean Energy Buying Surged to New Record in 2018* (Jan. 28, 2019), https://about.bnef.com/blog/corporate-clean-energy-buying-surged-new-record-2018/.

[23] Rich Glick & Matthew Christiansen, *FERC and Climate Change*, 40 Energy L.J. 1 (2019).

[24] 16 U.S.C. §§ 824d, 824e (2012).

can pose unintended barriers to those technologies' full participation in wholesale markets. The Commission must be vigilant in breaking down barriers created by those antiquated market rules and ensuring that all resources can compete on a level playing field.[25] Doing so can also indirectly facilitate a reduction in emissions by enabling the participation of new, relatively clean resources that can play a pivotal role in the electricity grid of the future.

Over the last decade, the Commission has taken a number of important steps to remove barriers to competition and ensure that new technologies and products can compete on a level playing field. For example, in 2008, the Commission sought to ensure that demand response resources[26] were able to participate in wholesale electricity markets by requiring regional transmission organizations and independent system operators (RTOs/ISOs) to make a number of reforms, including revising their market rules to accept offers from demand response resources largely as they would offers from conventional generators.[27] In 2011, the Commission again removed barriers to demand response resources' participation in wholesale electricity markets by requiring RTOs/ISOs to compensate such resources at the same level as conventional resources.[28] Similarly, in 2012, the Commission aimed to create a level playing field for variable energy resources—primarily wind and solar—by revising market rules that did not accommodate

[25] It is important to note that breaking down barriers to competition does not mean giving new technologies a preference over conventional ones or excusing new resources from obligations that apply to similarly situated conventional resources.

[26] Demand response programs pay consumers to reduce their electricity use in response to the price of electricity. *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760, 767 (2016).

[27] *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, 125 FERC ¶ 61,071, at PP 3, 16-19 (2008), *order on reh'g*, Order No. 719-A, 128 FERC ¶ 61,059 (2009), *order on reh'g*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

[28] *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, 134 FERC ¶ 61,187, at P 59, *order on reh'g & clarification*, Order No. 745-A, 137 FERC ¶ 61,215 (2011), *reh'g denied*, Order No. 745-B, 138 FERC ¶ 61,148 (2012), *vacated sub nom. Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014), *rev'd & remanded sub nom. FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760 (2016).

their operational models and characteristics, such as the rules governing how transmission service is purchased and scheduled.[29]

More recently, early last year the Commission issued a final rule that requires RTOs/ISOs to facilitate the participation of electric storage resources in the wholesale electricity markets.[30] The Commission required each RTO/ISO to establish a participation model for electric storage resources that recognizes the physical and operational characteristics of those resources. The model must: (1) ensure that electric storage resources are eligible to provide all capacity, energy, and ancillary services that they are technically capable of providing; (2) ensure that such resources can be dispatched and can set the wholesale market clearing price as both a seller and a buyer; (3) account for the physical and operational characteristics of such resources through bidding parameters or other means; and (4) set a minimum size requirement for electric storage resource participation that does not exceed 100 kilowatts. The Commission also required that each RTO/ISO specify that the sale of electric energy from their markets to an electric storage resource that the resource then resells back to those markets must be at the wholesale locational marginal price.

Shortly after taking action on electric storage resources, the Commission also reformed its standard generator interconnection procedures and agreements to, among other reforms, reduce potential barriers to large electric storage resources by explicitly including such resources in the

[29] *Integration of Variable Energy Resources*, Order No. 764, 139 FERC ¶ 61,246, *order on reh'g & clarification*, Order No. 764-A, 141 FERC ¶ 61,232 (2012), *order on clarification & reh'g*, Order No. 764-B, 144 FERC ¶ 61,222 (2013).

[30] *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127 (2018), *order on reh'g*, Order No. 841-A, 167 FERC ¶ 61,154 (2019).

definition of generating facility and expanding opportunities for interconnection customers to exercise the option to build certain required interconnection facilities themselves.[31]

The Notice of Proposed Rulemaking that led to the final rule on electric storage resources also proposed reforms to remove barriers to aggregated distributed energy resources' participation in wholesale markets. In particular, the Commission proposed to require each RTO/ISO to permit aggregated distributed energy resources to participate in their markets under the model that best accommodates the physical and operational characteristics of those resources. The Commission's proposal would also have required RTOs/ISOs to remove any unnecessary limitations on how aggregated distributed energy resources must be operated. Although the final rule on electric storage resources recognized the importance of removing barriers to aggregated distributed energy resource participation in wholesale markets, the Commission concluded that it needed additional information before issuing a final rule addressing distributed energy resources. To gather this information, the Commission conducted a two-day technical conference in April 2018. I believe we now have a sufficient record to move forward with a final rule that facilitates aggregated distributed energy resources' participation in wholesale markets. The time has come for the Commission to take new actions to eliminate those barriers.

The Commission's relationship with state energy policies can also have important consequences for climate change. Although FERC has jurisdiction over the wholesale sale and transmission of electricity in interstate commerce, the FPA reserves to the states exclusive jurisdiction to regulate "facilities used for the generation of electric energy."[32] This state authority includes the regulation of environmental externalities associated with electricity generation, such as

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[31] *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *order on reh'g*, Order No. 845-A, 166 FERC ¶ 61,137 (2019).

[32] 16 U.S.C. § 824(b) (2012).

greenhouse gas emissions.[33] Although Congress has revised the FPA a number of times, it has never revisited this preservation of the states' authority over resource decision making.

Any dual federalist statute will produce tensions at the jurisdictional boundaries between federal and state authority. In recent years, however, these tensions have increased as states have stepped in to fill the policy vacuum at the federal level on greenhouse gas emissions and climate change. Because many state actions will shape the number and type of resources available to participate in the wholesale market, they will inevitably have consequences for the wholesale sales of electricity subject to Commission jurisdiction. In recent years, a number of entities that would rather not compete directly with state-sponsored clean resources (ignoring that many of them have also benefitted, and continue to benefit from government subsidies), have urged the Commission to use those consequences as a basis for Commission action to frustrate or limit the effect of certain state policies aimed at reducing greenhouse gas emissions.

The Commission must resist the temptation to interfere with those state policies. Rather, the Commission must respect Congress's decision to leave the states in charge of regulating the generation mix, which, among other things, means that the Commission must ensure that wholesale market rules are not deployed to frustrate state policies. Not only does the FPA expressly reserve authority to regulate generation facilities to the states, but regulations addressing environmental externalities are paradigmatic examples of a state's exercise of its

[33] *Hughes v. Talen Energy Mktg., LLC*, 136 S. Ct. 1288, 1299 (2016); *Elec. Power Supply Ass'n v. Star*, 904 F.3d 518, 523-24 (7th Cir. 2018), *cert. denied*, 139 S. Ct. 1547 (2019); *Coal. for Competitive Elec. v. Zibelman*, 906 F.3d 41, 55 (2d Cir. 2018); *Allco Fin. Ltd. v. Klee*, 861 F.3d 82, 101 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 926 (2018); *Conn. Dep't of Pub. Util. Control v. FERC*, 569 F.3d 477, 481 (D.C. Cir. 2009); Brief for the U.S. and the FERC as Amici Curiae at 22-27, *Elec. Power Supply Ass'n v. Star*, 7th Cir. Nos. 17-2433 and 17-2445 (filed May 29, 2018); Brief of Amici Curiae Electricity Law Scholars in Support of Defendants-Appellees at 10-18, *Elec. Power Supply Ass'n*, 904 F.3d 518 (Nos. 17-2433 and 17-2445).

general police powers over health and welfare.[34] According adequate deference to state public policies under the FPA has potentially significant consequences for climate change, especially given the absence of federal action to address this existential threat.

Beyond the electricity sector, the Commission's energy infrastructure permitting responsibilities can also impact emissions. The Commission has authority over the licensing of certain hydroelectric facilities[35] as well as the siting of interstate natural gas pipelines[36] and facilities used to import or export liquefied natural gas.[37] With regard to hydroelectric facilities, the Commission is responsible for licensing and overseeing non-federally owned hydroelectric facilities in the navigable waters of the United States or on federally owned lands. Before issuing a license, the Commission must determine whether a hydroelectric facility is in the public interest. I believe that the ability of hydroelectric facilities to generate zero-emissions electricity[38] and to integrate other sources of zero-emissions electricity,[39] thereby reducing greenhouse gas emissions from the electricity sector, should be an important aspect of the Commission's public interest determination under the FPA.

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[34] *See, e.g.*, *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 442 (1960) ("Legislation designed to free from pollution the very air that people breathe clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power.").

[35] 16 U.S.C. § 797(e) (2012).

[36] 15 U.S.C. § 717f (2012).

[37] *Id.* § 717b.

[38] Hydropower remains one of the largest sources of renewable electricity in the United States. U.S. Energy Info. Admin., *Electric Power Monthly* (Mar. 2019), https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_1_01_a.

[39] U.S. Dep't of Energy, *Hydropower Vision: A New Chapter for America's 1st Renewable Electricity Source* 48 (2016), https://www.energy.gov/sites/prod/files/2018/02/f49/Hydropower-Vision-021518.pdf; A. Botterud et al., *Pumped Storage Hydropower: Benefits for Grid Reliability and Integration of Variable Renewable Energy*, Argonne Nat'l Lab. 33-43 (2014), https://publications.anl.gov/anlpubs/2014/12/106380.pdf; Timothy J. Welch, *Pumped-Storage Hydropower Shows Promise for Boosting Energy Storage*, U.S. Dep't of Energy Office of Energy Efficiency & Renewable Energy (Aug. 23, 2016), https://www.energy.gov/eere/articles/pumped-storage-hydropower-shows-promise-boosting-energy-storage.

The Commission also must make a public interest determination under the Natural Gas Act (NGA) before issuing certificates for interstate natural gas pipelines and facilities used to import or export liquefied natural gas. Because environmental effects factor directly into the public interest standard, the Commission must analyze the environmental effects of a proposed interstate natural gas pipeline under both section 7 of the NGA and the National Environmental Policy Act (NEPA).[40] That evaluation must include not just the direct effects of a proposed interstate natural gas pipeline, such as emissions associated with construction and operation, but also the indirect effects that are reasonably foreseeable consequences of granting a section 7 certificate.

A new interstate natural gas pipeline may, in some instances, help to reduce greenhouse gas emissions by reducing reliance on oil or coal, which produce more greenhouse gas emissions per unit of electricity generated than a new natural gas-fired plant. But natural gas is also a source of greenhouse gas emissions. Greenhouse gases are emitted not only through the downstream combustion of the natural gas, but also upstream from the new infrastructure through flaring and fugitive methane emissions, among others sources.[41] In other words, new natural gas infrastructure can have a number of effects on greenhouse gas emissions, either mitigating or contributing to the ultimate harm from climate change, all of which must factor into the Commission's evaluation of whether a certificate is in the public interest.

Unfortunately, in my opinion, the Commission has chosen to ignore its statutory mandates. Indeed, last year the majority of Commissioners announced a new policy that explicitly chooses

[40] National Environmental Policy Act of 1969, Pub. L. No. 91–190, 83 Stat. 852; *see Sierra Club v. FERC*, 867 F.3d 1357, 1373-74 (D.C. Cir. 2017) (*Sabal Trail*).

[41] Union of Concerned Scientists, *Environmental Impacts of Natural* Gas, https://www.ucsusa.org/clean-energy/coal-and-other-fossil-fuels/environmental-impacts-of-natural-gas (last visited June 8, 2019).

to ignore reasonably foreseeable upstream and downstream greenhouse gas emissions in almost all cases.[42] This policy prevents the Commission from performing the public interest analysis that Congress required when it enacted the NGA and creates legal risk for pipeline developers as the Commission's public interest determinations are increasingly tested before the courts.

In fact, the U.S. Court of Appeals for the D.C. Circuit held in 2017 that the emissions resulting from the downstream combustion of natural gas transported through an interstate natural gas pipeline can be a reasonably foreseeable result of building that pipeline that must be considered as part of the Commission's public interest determination.[43] The Commission to date has ignored this precedent. Last week, the D.C. Circuit reaffirmed its position that FERC has a statutory responsibility to examine an interstate natural gas pipeline's reasonably foreseeable upstream and downstream emissions when it considers whether the proposed pipeline is in the public interest.[44] I sincerely hope that I can work with my colleagues to meaningfully consider greenhouse gas emissions as part of the public interest determination going forward.

Similarly, under section 3 of the NGA, the Commission issues licenses for the facilities used to import or export liquefied natural gas unless it finds that the proposed facilities will not be consistent with the public interest.[45] As with new interstate natural gas pipelines, the Commission has refused to consider the significance of greenhouse gas emissions associated with new liquefied natural gas facilities.[46] In some cases, the Commission has gone so far as to

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[42] *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at P 43 (2018).
[43] *Sabal Trail*, 867 F.3d at 1373-74.
[44] *Birckhead v. FERC*, No. 18-1218, 2019 WL 2344836, at *3-4 (D.C. Cir. June 4, 2019).
[45] 15 U.S.C. § 717b (2012).
[46] *See Dominion Energy Cove Point LNG, LP*, 164 FERC ¶ 61,102 (2018). The courts have explained that, because the authority to authorize liquefied natural gas exports rests with the U.S. Department of Energy, NEPA does not require the Commission to consider the upstream or downstream greenhouse gas emissions that may be indirect effects of the export itself when determining whether the related liquefied natural gas export facility satisfies section 3 of the NGA. *See Sierra Club v. FERC*, 827 F.3d 36, 46-47 (D.C. Cir. 2016) (*Freeport*); *see also Sabal*

quantify the greenhouse gas emissions, but then refused to assess their significance.[47] This not only neglects the Commission's obligation to assess the environmental impacts of the proposed facilities under the NGA and NEPA, but also its concomitant duty to explore possible mitigation measures to reduce any significant adverse effects. In so doing, the Commission treats greenhouse gas emissions differently than all other environmental impacts it considers. The refusal to assess the significance of greenhouse gas emissions also precipitates the Commission's misleading conclusion that proposed new infrastructure has no significant environmental impact—a finding that plays an integral role in the Commission's public interest determination.

In sum, while the Commission is not a climate regulator, the potential climate consequences of the Commission's actions make it all the more important that the Commission faithfully execute its statutory mandates.

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

Trail, 867 F.3d at 1373. NEPA still requires, however, that the Commission consider the direct greenhouse gas emissions associated with a proposed liquefied natural gas export facility. *See Freeport*, 827 F.3d at 41, 46.

[47] *See Driftwood LNG LLC*, 167 FERC ¶ 61,054 (2019) (issuing a section 3 certificate for a liquefied natural gas export facility that the Commission determined would directly emit over 10 million tons of greenhouse gases annually without assessing the significance of the environmental impact of these emissions); *Port Arthur LNG, LLC*, 167 FERC ¶ 61,052, at P 137 (2019); *Venture Global Calcasieu Pass, LLC*, 166 FERC ¶ 61,144, at P 112 (2019); *Freeport LNG Dev., L.P.*, 167 FERC ¶ 61,155, at P 35 (2019).

Mr. RUSH. The Chair wants to thank the Commissioner.

And now the Chair recognizes Commissioner McNamee for 5 minutes. And Commissioner, see if you can beat him, because he had 1 minute, 27 seconds remaining, so.

STATEMENT OF BERNARD L. McNAMEE

Mr. MCNAMEE. I will do my best. Thank you, Chairman Rush and Ranking Member Upton. And I also want to thank Chairman Pallone and Ranking Member Walden, everybody on the committee for having me. As you know, this is my first time appearing before you. My name is Bernie McNamee. I just joined the Commission 6 months ago, and it has been a great joy to be able to work with my colleagues here and everybody at the FERC staff.

As you have heard from my fellow Commissioners, there are a number of important items that the Commission deals with. You all know this, but it is important to the Commission, the energy industry, consumers, and the Nation.

First of all, I want to talk a little bit about LNG facilities. In 2017, the United States became a net exporter of natural gas, and FERC has played a role in this accomplishment by authorizing the construction of liquefied natural gas facilities pursuant to section 3 of the Natural Gas Act and pursuant to the National Environmental Policy Act. After 2 years in which no new LNG facility was approved, the Commission now has approved, in a 3-month period, four LNG projects with a total estimated export capacity of 8 billion bcf a day. I am happy to say that I was able to play a part with my fellow Commissioners in finding a compromise in order to move these projects forward. And it also was an example of, if we look at the law and the facts we can usually come to a resolution of the issues for the benefit of the American people.

And currently the Commission has 10 LNG export applications pending before it, and four LNG expert facility proposals are in the prefiling process. We will address each of these applications that come before us based on the law and the facts.

More generally, since 2009, the United States has been the world's top producer of natural gas. Just think about that, when we used to wish that we could have energy independence and now we are a net exporter. This natural gas is transported across the United States using over 300,000 miles of interstate natural gas pipeline, and in 2018 over 13 billion cubic feet a day, or 689 miles, of Commission jurisdictional approved pipeline capacity entered service. Moreover, in 2018, the Commission authorized 44 new projects, representing 9.3 bcf a day, and 676 miles of new pipeline capacity.

And we have heard some issues about how are we approving these. As you know, the Commission issued a notice of inquiry in order to examine whether or not we should be changing our certificate policy. The Commission has received over 3,000 comments, and my colleagues, our staffs, and the Commission are all working through these comments.

I also want to touch on how the Commission is trying to implement the tax cuts that you implemented under the Tax Cuts and Jobs Act of 2017. The Commission issued its Order 849 to determine whether natural gas pipeline rates should be adjusted to ac-

count for those tax cuts. And the Commission is dealing with a review, and so far, there have been 21 rate settlements between pipelines and their shippers and 11 weight reduction filings. The Commission has also initiated six section 5 show-cost proceedings to see about reducing rates, trying to ensure that the tax cuts you ordered into the code are flowing through the customers.

Next, I want to talk a little bit about the electric markets. The transformation of the electric grid through the markets and competition has been amazing. Two-thirds of the Nation's load is served under an RTO or an ISO, and Congress and FERC should be proud of this achievement. Because of competition, new energy sources can participate in the market, and customers are seeing the benefits. But there are also legitimate concerns, many of the things that you have dealt with in your time here in Congress. They include debates about the role of the different resources, capacity markets, price formation, environmental goals, State energy policy goals, Federal policy goals, market manipulation, affordability, and of course the overarching goal, making sure the lights turn on when the switch is flipped.

There are also a number of other issues. We are trying to deal with PURPA, Order 1000, distributed energy resources, hydroelectric power, return on equity, transmission investments, and the specific tariffs that come before us. Each of these is important to each one of us here on the Commission, and we take them seriously, and we need to deal with them.

I will finally touch on one thing that is brought up by a number of my fellow Commissioners and which I find very important as well, and that is energy storage. I was not on the Commission when the energy storage issue was issued, Order 841, but I agree with its portions of it that promote the use of energy storage resources at the grid, at the transmission level, and the bulk power system. But as you may know, I issued a concurrence in dissent focused on the jurisdictional issue. I do not believe that Congress provided the Commission under the Federal Power Act the authority to regulate the distribution facilities that are needed for those certain types of distribution or energy resource batteries to be able to connect behind the meter or at the distribution level.

So this was a position that I looked at seriously, especially after comments filed by the National Association of Regulatory Utility Commissioners and the National Rural Electric Cooperative Association. In the end, I did say that I didn't think we have jurisdiction, but I also believe that we should have at least considered an opt out. Thank you very much.

[The prepared statement of Mr. McNamee follows:]

Written Testimony of Bernard L. McNamee
Commissioner, Federal Energy Regulatory Commission
Before the Subcommittee on Energy
House Energy and Commerce Committee
June 12, 2019

Chairman Rush, Ranking Member Upton, and members of the Committee. Thank you for inviting me and my fellow Commissioners at FERC to appear before you.

You have heard from my fellow Commissioners about a number of items that are important to the Commission, the energy industry, consumers, and the Nation. Each area of activity that the Commission oversees is important, but I will touch on a few in particular.

LNG Export Facilities

In 2017, the United States became a net exporter of natural gas for the first time in almost 60 years.[1] And FERC plays a role in this pursuant section 3 of the Natural Gas Act (NGA) and the National Environmental Policy Act (NEPA).

After two years in which no new LNG project was approved, the Commission has now approved—in a three month period—four LNG export projects[2], with a total estimated export capacity of 8 Bcf per day.

I am happy that I was able to play a part in finding a compromise to approve those four projects. By looking at the law and the facts, I think we can work to find solutions that benefit the American people.

I also note that the Commission has ten LNG export applications pending before it, and four LNG export facility proposals are in the pre-filing process.

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[1] The United States became a net exporter of natural gas in 2017. The United States Energy Information Administration (EIA) projects that, for the first time since the 1950s, the United States will export more energy than it imports by 2020 as increases in crude oil, natural gas, and natural gas liquids production outpace growth in U.S. energy consumption. EIA, The United States is Expected to Export More Energy Than It Imports by 2020 (Jan. 29, 2019), https://www.eia.gov/todayinenergy/detail.php?id=38152 (EIA January 2019)

[2] *Freeport LNG Development, L.P.*, 167 FERC ¶ 61,155 (2019); *Port Arthur LNG, LLC*, 167 FERC ¶ 61,052 (2019); *Driftwood LNG LLC*, 167 FERC ¶ 61,054 (2019); *Venture Global Calcasieu Pass, LLC*, 166 FERC ¶ 61,144 (2019).

Natural Gas

Since 2009, the Unites States has been the world's top producer of natural gas.[3] This natural gas is transported across the United States using over 300,000 miles of interstate natural gas pipeline. In 2018, over 13 billion cubic feet per day and 689 miles of Commission-jurisdictional pipeline capacity entered service and the Commission authorized 44 new projects, representing 9.3 Bcf/d and 676 miles of new pipeline capacity.

Notice of Inquiry on Certification of New Pipeline Infrastructure Facilities

Pursuant to Section 7 of the Natural Gas Act, the Commission reviews applications for construction and operation of interstate natural gas pipelines. Though the Commission has no jurisdiction over pipeline safety or security, FERC review ensures that applicants certify that they will comply with Department of Transportation safety standards.

In April 2018, the Commission issued a notice of inquiry seeking stakeholder input on whether changes should be made to how the Commission considers applications to build new natural gas pipelines and infrastructure. The Commission specifically asked about: (1) its methodology for determining whether there is a need for a proposed project, including the Commission's consideration of precedent agreements and contracts for service as evidence of project need; (2) its consideration of the potential exercise of eminent domain and of landowner interests relating to a proposed project; (3) its environmental impact analysis; and (4) specific changes it could consider implementing to improve the efficiency and effectiveness of its processes. In response, the Commission received nearly 3,000 comments. Of those, 2,300 are form letters and 700 are unique. My colleagues, our staffs and staff of the Commission program offices are working through these comments.

Tax Cuts and 501-G

Last July, in recognition of Congress' passage of the Tax Cuts and Jobs Act of 2017,[4] the Commission issued Order No. 849 to determine whether natural gas pipelines rates should be adjusted to reflect the corporate tax reduction in order for the rates to remain just and reasonable. Order No. 849 required jurisdictional natural gas companies to file abbreviated cost and revenue studies and provided those companies the opportunity to voluntarily reduce their pipeline rates or explain why no rate reductions are necessary. The Commission then uses the cost and revenue studies and the additional filings to determine whether to initiate an NGA section 5 investigation into the justness and reasonableness of a natural gas company's rates and to potentially bring rate relief to its customers.

The Commission has completed 91 percent of its review of jurisdictional natural gas pipelines filings in response to Order No. 849. The Commission's action has led to the filing of

[3] EIA, United State Remains the World's Top Producer of Petroleum and Natural Gas Hydrocarbons (May 21, 2018) https://www.eia.gov/todayinenergy/detail.php?id=36292.
[4] Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018, Pub. L. 115-97 (lowering corporate tax rate from 35 percent to 21 percent).

21 rate settlements between pipelines and their shippers and 11 rate reduction filings. The Commission has also initiated six NGA section 5 show cause proceedings.

Oil

In 2018, United States' crude oil production set a record high of 11 million barrels per day, more than doubling oil production in ten years and making the United States the world's largest producer of crude oil.[5] And, growth is expected to continue.[6]

Pursuant to the Interstate Commerce Act, the Commission is responsible for regulating rates and practices of oil pipeline companies engaged in interstate transportation of oil and natural gas liquid products. While the Commission does not regulate oil production, infrastructure, or exports, the Commission plays an important role in ensuring that rates are just and reasonable and that infrastructure can be financed through its regulation of rates of oil pipelines.

Electricity Markets

The transformation of the electric grid through markets and competition has been amazing. Two-thirds of the nation's electricity load is served in RTO/ISO regions. Congress and FERC should be proud of this achievement. Because of competition, new energy resources can participate in the market and customers are benefitting.

But there are also legitimate concerns and frustrations about the details of the electric markets. These include debates about the role of different resources; capacity markets; price formation; environmental goals; state energy policy goals; federal policy goals; market manipulation; affordability—and, of course the one overarching goal—ensuring that the lights turn on when the switch is flipped.

There are a number of other important issues that are confronting the Commission and the electric industry: Public Utility Regulatory Policies Act (PURPA), Order No. 1000, distributed energy resource aggregation, hydroelectric projects, Return on Equity (ROE) calculation, transmission incentives, and specific tariff changes in electricity markets. Each of these is important and deserves our attention as FERC Commissioners.

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[5] EIA, This Week in Petroleum (Feb. 21, 2019), https://www.eia.gov/petroleum/weekly/archive/2019/190221/includes/analysis_print.php; EIA, U.S. Monthly Crude Oil Production Exceeds 11 Million Barrels per Day in August (Nov. 1, 2018), https://www.eia.gov/todayinenergy/detail.php?id=37416.

[6] EIA, U.S. Petroleum Product Exports Set Record High in 2018 (Apr. 23, 2019), https://www.eia.gov/todayinenergy/detail.php?id=39192. EIA recently forecasted that United States' crude oil production will average 12.4 million barrels per day in 2019 and 13.2 million barrels per day in 2020. Furthermore, United States' exports of total petroleum products set a record high in 2018, reaching an annual average of 5.6 million barrels per day.

Electric Storage

On May 16, 2019, the Commission issued its decision denying rehearing on Order No. 841—the electric energy storage resources order from February 2018. As some of you may be aware, I issued a partial concurrence and dissent to the order denying rehearing.

First of all, I believe electric energy storage resources (ESRs) have the potential to transform the electricity industry. ESRs will allow the electric transmission system to take full advantage of periods of high generation from intermittent resources, such as wind and solar, and use that energy in times when those resources are not available but energy is needed.

Within the correct regulatory and policy framework, storage can unlock significant economic and market efficiency benefits that have to date eluded the electric industry, its regulators, and—most importantly—consumers.

So although I was not on the Commission when Order No. 841 was approved, I support its efforts to promote the participation of ESRs in the wholesale markets.

But in response to Order No. 841, a number of entities requested the Commission to reconsider its decision. These groups included the National Association of Regulatory Utility Commissioners (NARUC); a group consisting of American Municipal Power, Inc. (AMP), the American Public Power Association (APPA) and the National Rural Electric Cooperative Association (NRECA); Edison Electric Institute (EEI); and the Transmission Access Policy Study Group (TAPS). These requests focused on two arguments:

- First, that the Commission exceeded its authority and jurisdiction by requiring states to allow ESRs to connect to distribution facilities; and
- Second, that, at a minimum, the states should have been allowed to opt-out of the requirement to permit ERSs to use the distribution facilities so as to access the wholesale markets.

Considering all the arguments in the proceeding, I concluded that the Commission exceeded its statutory jurisdiction over functions and assets reserved by the Federal Power Act (FPA) to the states.

As a creature of statute, the Commission has only that authority Congress has conferred upon it. As relevant here, the FPA—under section 201 (b)(1)—grants the Commission jurisdiction to regulate electricity in two areas: (i) "transmission of electric energy in interstate commerce," and (ii) "the sale of electric energy at wholesale in interstate commerce."[7]

[7] 16 U.S.C. § 824(b)(1)

The FPA, however, is explicit in stating that the Commission does not have jurisdiction "over facilities used for the generation of electric energy or over facilities used in local distribution. . . ."[8] These subjects are reserved to the states.

But, Order No. 841 mandates that ESRs be permitted to use distribution facilities so that they may access the wholesale electric market. There is no doubt that the participation of ESRs behind-the-meter or on the distribution lines can "affect wholesale rates," but in order to "affect" wholesale rates such ESRs must first have access to the wholesale market, and they can only do so by using distribution facilities. In my view, the FPA does not provide the Commission with the authority to require that distribution facilities permit ESRs to use those facilities to access wholesale markets.

Importantly, Order No. 841 places the burden on local distribution utilities and their regulators—frequently called the state public utility commissions (PUCs)—to implement safety and reliability investments. In my view, FERC does not have the authority to commandeer the states to implement federal policy in this manner.

Next, even if FERC does have the authority to exercise jurisdiction in this matter, the Commission should have provided the states an opportunity to opt-out. In my view, the Commission should have embraced "cooperative federalism" by permitting the states to choose whether to allow behind-the-meter and distribution-connected ESRs to participate in the wholesale markets. The Commission's order placed new burdens on state PUCs to ensure the safety and reliability of the distribution system so as to accommodate ESRs that want to participate in the wholesale electric market and did so without even providing the states the opportunity to opt-out. Again, in my view, this was not appropriate.

Conclusion

Thank you for the opportunity to testify before you. I look forward to answering your questions.

[8] *Id.*

Mr. RUSH. I want to thank all of the Commissioners for their opening statement, and we have now concluded the time for opening statements. We will move into Members' questions. Each Member will have 5 minutes to ask questions of these witnesses, and I will start by recognizing myself for 5 minutes for the purposes of an opening—for questioning the Commissioners.

Commissioner LaFleur, one of my concerns that I have stated earlier is that consumer voices are often overlooked, ignored, or cut out on the RTO process entirely. I understand that the role of the consumer varies between the different RTOs, but how do we ensure that consumers' voices are always heard and their interests are being protected consistently no matter what region they live in?

And I would like for all the Commissioners to weigh in this question also.

Ms. LAFLEUR. Well, thank you, Congressman, Chairman Rush. That is an important question. As you noted, all of the six RTOs and ISOs that are under the Commission's jurisdiction have stakeholder processes that were approved by the Commission some years ago, and they all include a consumer segment. It varies in the different States, whether it is the Attorneys General, the Citizens Utilities board as in your State, or sometimes municipal concerns are in the consumer segment in the various RTOs, and they have a vibrant role in participating in the dockets.

But I also think this Commission has a role. When we see tariff proposals come before us, our obligation is to make sure they are just and reasonable to the end consumer that is going to be paying the bills at the end of the day. But we have heard a lot recently about potential ways to relook at Order 719 and improve stakeholder processes ,and I think we should be alert to ways to do that.

Mr. CHATTERJEE. If I could weigh in on that as well, Chairman Rush. You have identified a very important issue, and I think, you know, transparency and ensuring the consumers' voices are heard is critical. That is why we have our rules in place. I think it is so important that stakeholders and consumers have their voices heard on these issues, because these issues have implications for consumers.

I think the best way for consumers to have their voices heard, you know, go back to our rule. We can look at changes we can make, but we also need to make sure that consumers' concerns are met as they arise, with an eye towards ensuring consumers' voices are being heard as they come up through the process. And this is something that my colleagues and I will continue to look at and be vigilant on, because I think that transparency and accountability, these are very, very complex matters, and I think it is important that consumers are protected.

Mr. RUSH. Commissioner Glick?

Mr. GLICK. Thank you, Mr. Chairman. You know, one of the things that has been very enlightening since I have been at the Commission for a little over a year now is just the amount of frustration there has been with RTO governance around the country. And it is not just consumer groups, it is other stakeholders as well who have been very frustrated with. And I think it is worth it for the Commission to take a look at how the governance process works and how the various stakeholders get to participate.

I would say that Congress in the late 1970s, early 1980s passed legislation creating an Office of Public Participation at FERC that I think would help provide for some consumer input at the Commission. As I understand it, Congress never did fund that Office, but I think it would be helpful if Congress did fund it, and I think that would be one way for consumers to participate in some of the decisionmaking processes we engage in.

Mr. RUSH. Commissioner——

Mr. MCNAMEE. Just briefly. I think that you are talking about the importance of——

Mr. RUSH. Commissioner McNamee, I am sorry.

Mr. MCNAMEE. That is quite all right. I think you touch on what is so very important, is that in our entire system of government, people want to be heard. And I know that we all take very seriously our obligation to understand that every person that files something in the Commission, that that case is important to them and that they need to be heard. And I think we always need to be vigilant to make sure that we are paying attention to what consumers want, what stakeholders want, every participant wants, in order to make sure that we are at least considering and hear their concerns even though sometimes it won't always be the result any particular individual or group wants. Thank you.

Mr. RUSH. I am going to yield back the remainder of my time and now recognize the ranking member of the great State of Michigan, Mr. Upton, for 5 minutes.

Mr. UPTON. Thank you, Mr. Chairman. It is the great State of Michigan, so that is good we put that adjective in there.

Mr. Chairman Chatterjee, first, I want to say to all four of you, I appreciate your interaction with all of us. This is something that is so important. We appreciate the relationships that we have.

For me, we know that rogue hackers and state-sponsored adversaries continue to launch cyber attacks at our Nation's energy infrastructure virtually every single day. And as you know, under the EPAct 2005, Congress gave FERC the authority to oversee the reliability of the electric grid including the authority to approve mandatory cybersecurity reliability standards. The current framework for setting cyber standards for the grid seems to be working pretty well, I think, but FERC does not have the authority over pipelines. And even though we are increasingly relying on natural gas pipelines to keep our power plants running—and I know in my congressional district we are expecting to break ground on a new Indeck facility in one of my communities back home.

So the question is, should Congress be concerned about the lack of cyber oversight for pipelines, and I would note that TSA, in a hearing that we had a couple weeks ago, has less than a handful of folks—anybody here from TSA? Didn't think so—less than a handful of folks out of their 50,000 employees that oversee pipelines. They did refuse despite bipartisan efforts to try to get them to testify before the committee, but what are your thoughts about the involvement of cyber and the relationships that you might have with other agencies as well?

Mr. CHATTERJEE. Thank you, sir, for the question and also for your leadership on this issue, and particularly during the time that you chaired the committee. I think this is a very serious issue, and

I think it is exacerbated by the increasing interdependence between gas and electricity generation in this country. Twenty years ago, if a single gas pipeline went out, a generator might not have flinched. Today, you might have eight or nine generators depending on a single gas pipeline, and a physical or cyber attack on such a pipeline could have catastrophic cascading effects. And our adversaries know this.

I think TSA does a remarkable job on things like the safety of our aviation fleet, our highways, our rail, transportation area, but they need to put a greater focus on securing these pipelines because of this increasing interdependence for electricity. Since you, Senator Cornyn, Senator Cantwell, and a number of others have come out on this issue, Commissioner Glick and I have also been very vocal about our concerns in this area.

We have seen some progress from both TSA and industry. I have met multiple times with the TSA Administrator Pekoske, and he has assured me that TSA is taking this seriously and they are going to commit more resources to it. I have also seen industry react positively and come forward and make the commitment that they will make the requisite investments in this area, but we have to remain vigilant on it. I think both TSA and industry need to follow through on the commitments that they are making. And if they don't, I think it is incumbent upon us at the Commission and you all to keep the pressure on.

Mr. UPTON. Well, we want to help you do that. Any other Commissioner wish—Commissioner Glick?

Mr. GLICK. Mr. Upton, as the Chairman said, we wrote a joint op-ed on this issue, and I share the Chairman's concerns. I would say that I continue to have serious concerns about the TSA's ability here. And I read the GAO Report recently that I think expressed some serious concerns about their resources and their efforts in the program. And I am not entirely sure what their plans are. We just need to see what their plans are in terms of responding.

But we had a technical conference on cybersecurity just a few months ago and a TSA witness participated, and I asked her about the success rate of their voluntary guidance. And they said, "Well, our hope is to have a success rate of 80 percent." Eighty percent doesn't cut it. We need to have the success rate of a hundred percent. And again, the TSA does a wonderful job on airports and other transportation, but I think the pipeline industry, I think we need to see that moved. I would actually recommend the Department of Energy, which is, as you know, the lead energy sector agency for cybersecurity.

Mr. UPTON. Commissioner LaFleur?

Ms. LAFLEUR. Thank you, Congressman. I was in the electric industry when the mandatory standards were first handed down after the 2005 act, and we did not exactly welcome them. Our attitude was, we already do this, right, why do we need mandatory standards? But I believe they have definitely improved the reliability and security of the grid, and I actually think most people in the industry would concede that now too.

I think, although I know the pipeline industry is not calling for mandatory standards, I think the cybersecurity of the pipeline grid is so important that it would be worthwhile for Congress to require

some sort of mandatory authority. It doesn't have to be at FERC. It could be at TSA and give them the resources, it could be at DHS. It could be at DOE. I am not in the business of looking for more responsibilities at FERC, that is up to you all. But I do think a structure with some teeth to it would be very helpful.

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

Mr. RUSH. I want to thank the gentleman. And now the Chair recognizes Mr. Peters for 5 minutes.

Mr. PETERS. Thank you. Thank you to the Commissioners for your work and for being here today. I want to just mention climate change, which is exacerbating natural disasters. For California that means more intense wildfires each year, with a huge impact on personal safety, communities' health, and the economy. The Midwest has seen flooding. The South has seen hurricanes. The Northeast has a cold snap, polar vortex conditions.

So I want to talk a little bit about how we are managing the electric system and planning for that. How is FERC looking at accounting for climate change in the design of wholesale markets and in grid investments? Let's start with the Chairman, if I could.

Mr. CHATTERJEE. Thank you for your question, Congressman. And, look, similarly, I share your concerns about climate change and the impacts of climate change. I am a conservative, I grew up in coal country. But I believe that climate change is real, that man has an impact, and that we need to take steps to mitigate emissions. I have been very proud of the work that the Commission has played in really helping the U.S. become a leader in emissions reductions. And if you look at the statistics, the U.S. has been a leader in emissions reductions. Power sector emissions in the U.S. are at 1990s levels, and I think that is due to a couple of things. The markets that FERC oversees, we are allowing breaking down barriers to access so that newer technologies can be——

Mr. PETERS. And how is that happening? I want to be very specific about what actions you are taking with respect to market design.

Mr. CHATTERJEE. Yes, sir. So, I think the market works. Competition works. Consumers are demanding cleaner energy sources, those sources are dropping in price and are able to compete and that——

Mr. PETERS. Is there anything specifically that FERC is doing?

Mr. CHATTERJEE. I could point to Order 841, the order we did on battery storage to break down barriers to entry to allow battery storage to be compensated for all of the attributes it provides. That is going to lead to an increased deployment, we think a dramatic increase in the deployment of battery storage technology which will have a direct and, I think, significant impact on mitigating carbon emission.

Mr. PETERS. There was a resilience docket that you opened with the coal, nuclear NOPR was denied back in, I think, January 2018. You haven't taken any action on the resilience docket yet, is that correct? And when can we expect that?

Mr. CHATTERJEE. That is correct. We don't make projections on timing. It is a very complex docket. When Secretary Perry proposed the rulemaking in the fall of 2017, the action that he was asking for, compensating plants for having onsite fuel, we all found collec-

tively that our record did not support that action. Now, a year and a half later, we have a far more robust record and we are looking at these very complex challenges.

I think the next step ought to be—and I don't want to get in front my colleagues—but to engage the RTOs and the ISOs and the States on fuel security, to look at this very serious issue. But what I can assure you we will not do is, as the chairman said at the onset, we are not going to put our thumb on the scale for one fuel source or the other. We are going to look very seriously at these markets and the future of our grid.

Mr. PETERS. Ms. LaFleur, do you have any thoughts on this question?

Ms. LAFLEUR. Yes, I certainly agree that the Commission has a responsibility to make sure that the resource rules and the markets are adapted to new resources and not just the traditional resources that existed when the markets were built.

And I think we have done a lot over the last decade on demand response, variable energy, renewables, storage and so forth, but beyond that what we are seeing now is that, since there has not been—in other environmental issues that the Nation confronts, if Congress passes a law and says you have to reduce sulfur dioxide or whatever, then all the power plants have to conform and the cost of doing that gets priced into the market. Because there is not any national climate legislation, as you know, it is being handled on a State by State basis.

And that is the issue that I mentioned earlier, that the markets are working to figure out how they can run a regional market with multiple States with all different climate policies, but I think it is essential that they do, and the markets have to be adapted. If that is where climate action is going to happen on the State level, we have to adapt the markets to function in that environment.

Mr. PETERS. Are you saying that you think that a Federal standard, a low-carbon fuel standard or something like that would be helpful in getting——

Ms. LAFLEUR. Absolutely. I think that it is a global issue. It should be addressed at the highest level possible. And if we had a Federal standard, whether we were deciding whether a pipeline was consistent with the standard or whether a tariff in the market was consistent, we would have a benchmark to look at. Do they have enough allowances? Does this work with their standards? And it would be far more compatible because the Nation's electric grid is not State by State, it is big, big regions.

Mr. PETERS. OK. Just a quick question for Commissioner Glick, I don't have a lot of time. But I am interested in hydropower as a valuable zero-emission energy source. You mentioned it in the testimony. Really quickly, how do you think we increase hydropower facilities with pump storage capabilities?

Mr. GLICK. Well, pump storage can play a very important role, and I think our storage rule didn't just apply to battery storage, it applied to pump storage and other forms of storage as well. I think what we need to do and what we are doing, I think, is through our licensing process consider proposals for pump storage products and approve them, assuming they are in the public interest.

And I think——

Mr. PETERS. OK, I am out of time. I am sorry. I don't want to take my colleagues' time, but if you want to give me anything in writing on that, that would be helpful too.

Mr. GLICK. Will do, sir.

Mr. PETERS. Mr. Chairman, I yield back.

Mr. RUSH. The chairman thanks the gentleman. The Chair recognizes now Mrs. McMorris Rodgers for the purposes—no, Mr. Latta. I am sorry. Mr. Latta. Mr. Latta.

Mr. LATTA. Thank you, Mr. Chairman, and thanks for holding today's hearing and thanks to our witnesses for being with us today. It is very, very important that you are here.

Chairman, if I could ask some questions of you this morning, you recently mentioned that you would like to see FERC to do more to consider landowners affected by pipeline projects, saying, "It is not a landowner's responsibility to be tracking FERC's filings." Would you tell the committee what you see FERC doing, and tell us if there is anything that you need from Congress at this time?

Mr. CHATTERJEE. Yes, absolutely. And thank you for the question, Congressman. I think energy infrastructure is important. We need it for our economy, for our security, for the reliability of the grid, but we have to be mindful that landowners, you know, need to understand what their rights are, need to understand what options there are for mitigation, for restoration and the like. And I don't think the Commission nor project sponsors have done a good enough job in communicating these things to landowners.

And so, as we opened a review of our 1999 certificate policy statement, which is our process for evaluating pipeline applications, that was one area that I zeroed in on, is what can we do to ensure that landowners' rights are taken into consideration and they are aware of what options are available to them. And that is something that we are looking to do. We are actively meeting with stakeholders to figure out where we can make improvements.

I have seen some improvements from project sponsors. Project sponsors, since I have made this clarion call, have come to the Commission and shown me the lengths that they go to and the investment that they make in communicating with the landowners. And that is a step in the right direction, but I am hoping that we at the Commission can do our part to ensure that landowners——

Mr. LATTA. Do you have any specific examples right now that what FERC has been doing?

Mr. CHATTERJEE. So we are in the process right now—it may not seem that significant, but it really is—in just updating our website and ensuring that, you know, information is more easily disseminatable to people who, as I stated, it is not their job. It is not their responsibility to track these very complex filings. They shouldn't know—a need to know and track these proceedings, and we need to make this information more readily available to them and get it out proactively.

Mr. LATTA. OK, thank you. Let me follow up with another question to you. The reliability and resiliency of the bulk electric system requires support from generation and transmission assets. Given the ever-adapting nature of electricity supplies, would you talk

about the importance of the transmission assets to the future reliability and resilience regardless of the type of fuel?

Mr. CHATTERJEE. Yes, sir. I think there is no question that we are experiencing rapid transition in our energy landscape. And I think as the grid adapts and as we move towards the grid of the future, I fundamentally believe that transmission will be the key, and we have to make sure that we get, at the Commission, get transmission policy right to ensure that that grid of the future is in place.

We currently have two open proceedings, two notice of inquiries that we opened a few months ago to look at how we calculate ROEs, return on equities, for these investments as well as our incentives policy. What types of transmission should we be incenting? And I think for me, a current approach is to evaluate, put out incentives based on the risks of a particular project. I don't know if that is the smartest approach to ensuring that the grid of the future that we need is built, and so we are going to look to see what are the smart investments that need to be made to ensure that that transmission system is in place so we can maintain the reliability and resilience of the grid.

Mr. LATTA. OK. Well, thank you. One more question. You mentioned in your testimony that in October of last year, FERC approved new mandatory reliability standards to bolster supply chain risk management protections for the Nation's bulk electric system. Would you expand on this and other activities that FERC is undertaking, especially on the supply chain and critical infrastructure?

Mr. CHATTERJEE. Yes. Thank you, sir. I mean, the supply chain is something that we all need to, you know, be focused on, because again it is a challenge for FERC because we don't have jurisdiction in some of these areas and so we have to be coordinated and work with NERC and others to stay ahead on this. The reality is cybersecurity and the reliability of the grid, this is the new reality that we must contend with. And while we are the beneficiaries, consumers are the beneficiaries, America is the beneficiaries of this tremendous evolution and technological innovation, that innovation comes with a downside risk, and that is increasing vulnerability to threats from bad actors and on the cyber side.

And I think it is incumbent that we are partners with NERC, Congress, the Department of Energy, and across the Federal Government work together because we do have criss-crossing jurisdictions in some areas and we need to ensure that those lines of communication are in place so that we cannot just have standards, because I believe standards to be the floor not the ceiling of what we can do, I think if we all work together because our adversaries are continually evolving, and we have to evolve to stay one step ahead of them.

Mr. LATTA. Well, thank you very much, Mr. Chairman. My time has expired, and I yield back.

Mr. RUSH. The Chair thanks the gentleman. The Chair now recognizes Mr. Doyle for 5 minutes. I am sorry. Mr. Pallone is here, the chairman of the full committee. Mr. Pallone for 5 minutes.

Mr. PALLONE. Thank you. Thank you, Chairman.

In his opening statement, Mr. Kennedy raised concerns about regional transmission organization, RTO, governance, and I share

many of his concerns. FERC Order 719 directs RTO procedures and practices to be inclusive, to fairly balance diverse interests, and to ensure adequate consideration of minority positions. And that Order 719 was issued in 2008, and it provides stakeholders process requirements for RTOs to follow, but to my knowledge there has not been a comprehensive review by FERC of each RTO stakeholder process to ensure compliance with the requirements of Order 719.

So, Chairman Chatterjee, I just would say it is time to review the requirements and to review RTO compliance. And I want to know if you agree and, if so, would you consider taking action on this matter in the immediate future?

Mr. CHATTERJEE. Thank you for the question, Mr. Chairman. We were discussing earlier, this is something that we continually hear from people around the country, concerns about ensuring that consumers' voices are heard, that the process is transparent, that people are aware of what is transpiring within the RTOs and the ISOs. And yes, it has been a decade since we looked at Order 719.

I do think, you know, going back to the rule is one option, but, you know, looking with an eye towards ensuring consumers' voices are heard as they come up through the process is another manner in which to do this. I think, particularly as new technologies come into play and we look to break down barriers to entry, we need to ensure that these new voices have an opportunity to be heard at the RTOs and the ISOs, and certainly it is something I am committed to working towards.

Mr. PALLONE. Well, I appreciate that and, you know, want to continue working with you. I also want to reiterate what I said in my opening statement regarding concerns with the process by which RTOs assess their transmission infrastructure needs. We must provide greater incentives for nontransmission alternatives so that companies are not building unnecessary infrastructure that increases costs to ratepayers.

So let me ask Commissioner Glick, do you believe that in certain cases nontransmission alternatives can be used to increase reliability while also limiting costs to ratepayers?

Mr. GLICK. Thank you, Mr. Chairman. Absolutely, they do. And as a matter of fact, you know, in the Commission's Order 1000 issued several years ago, it requires transmission planners and the various RTOs and the ISOs around the country to consider nontransmission alternatives. What I think is missing is that I think there is an incentive for utilities many times to build more transmission, because if you build, you invest something that costs a lot of capital——

Mr. PALLONE. Exactly. And that is what I hear from my consumers.

Mr. GLICK. So I think what we need to do, and Chairman Chatterjee earlier mentioned that we have a new incentives process at FERC looking at our incentives policy, and I think what we need to do is incentivize using newer technologies and nontransmission alternatives, but also using our existing grid more efficiently rather than—sometimes we can do that rather than build a line. We need to encourage utilities to look into those types of investments.

Mr. PALLONE. Oh, this is music to my ears, I want to be honest with you. Now let me see if I can get a climate question in. In May 2018, FERC issued a new policy that eliminated from consideration most upstream and downstream greenhouse gas emissions. Just last week, the DC Circuit in the Broad Run case flatly rejected the core legal arguments that form the basis for that policy.

So let me just ask Commissioner Glick and LaFleur, not much time left, but do you think the Court's decision in Sabal Trail and Broad Run require FERC to reform how it considers upstream and downstream greenhouse gas emissions? I guess I will start with Ms. LaFleur since I haven't asked you.

Ms. LAFLEUR. Yes, the Sierra Club case and the Sabal Trail definitely changed the rules that apply to the Commission, or made clear what they were. It specifically related to downstream emissions, and I think the Commission has been too stinting in its interpretation. I dissented in our order on remand because I think we have only taken the court's guidance to heart when it is a specific power plant exactly like the situation in the Sabal Trail pipeline. And I think the implications of the decision go much broader. And as Commissioner Glick testified earlier, a couple weeks ago we got another decision from the DC Circuit that made clear that FERC is a legally relevant cause of the downstream emissions, and we should be looking at them.

Mr. PALLONE. Mr. Glick?

Mr. GLICK. Mr. Chairman, I would just say that there has been some question recently as to whether the Commission has the authority to look at reasonably foreseeable greenhouse gas emissions, and I think the two court cases, including the one last week have, I think, put that question to bed. I think we clearly have that authority.

Mr. PALLONE. Quickly, how does FERC's analysis of a project's greenhouse gas emissions relate to the requirement of the Natural Gas Act to only approve projects that are in the public convenience and necessity?

Mr. GLICK. Well, when we consider the public interest, we also look at the environmental impacts of the pipeline, for instance, wetlands or migratory birds or anything like that. And if we find that the impacts of the environment are too adverse, then we won't consider the project to be in the public interest. Here, we are actually ignoring what impacts the project might have on climate change.

Mr. PALLONE. Thank you. Thank you, Mr. Chairman.

Mr. RUSH. The Chair now recognizes Mrs. McMorris Rodgers for 5 minutes.

Mrs. MCMORRIS RODGERS. Thank you, Mr. Chairman. I appreciate everyone being here and for your work at FERC. I am from Washington State. And if you are not aware, my district in Washington State is very dependent upon hydropower, and I believe that we should be embracing what hydropower can provide for us as we continue to move towards a 21st century clean energy future.

You know, in Washington State right now, our carbon emissions are actually up, and some of that is—one of the big drivers is because of the—from power plants, more dependence on power plants. And I look at this and I think there is so much more capac-

ity for hydroelectricity, even in Washington State as well as across the country. The National Hydropower Association did a report a few years ago highlighting that we could double hydropower in America without building a new dam, because only 3 percent of the dams actually produce electricity.

So there is huge infrastructure investment there, and as the largest renewable with lots of potential, I just believe that we should be doing more. It is renewable. It is reliable. It is affordable. We enjoy some of the lowest electricity rates in the country because of hydropower. Last Congress, I had introduced the Hydropower Policy Modernization Act, which would have modernized the hydropower licensing review process. Just to put this in perspective, it takes on average 10 years to relicense a hydropower facility in America today. You can compare that to a natural gas facility at 18 months, I believe that we can do better.

This legislation passed the House with bipartisan support, and I would like just to use this opportunity today to ask about the FERC process for licensing, relicensing of hydropower projects. It is my understanding that there are hundreds of hydropower projects scheduled to come up for relicensing before the Commission in the next 10 years. While Congress has passed some improvements for the licensing of new projects, we haven't yet passed the significant reforms for the existing projects across this country.

This lack of action and its impact on our existing hydroelectric facilities is why I continue to advocate for us addressing the relicensing of hydropower in America. I have concerns that the uncertainty in the cost as currently associated with hydro relicensing, particularly for the smaller projects, may result in fewer relicensing efforts and will lead to a loss of flexible generation, less reliable grid. Hydropower provides the largest natural batteries in the country also. There are lots of benefit.

So I wanted just to ask the Chairman and the others, do you agree that this lack of effort to address and improve our relicensing process is of concern and, if so, what are some of the areas you would recommend that we work on to reduce the duplication of effort, unnecessary delays, and undue cost?

Mr. CHATTERJEE. Thank you for the question and for your support of this. I agree with you on the significance of hydro and the concern about the licensing process. We have been working very hard on it. We issued a final rule establishing an expedited licensing process for original hydropower licenses for certain facilities at existing nonpower dams and for closed-loop pump storage projects. We are fully aware that another wave is coming, and we have alerted the licensees far in advance to give them time to work on their applications.

I also share your concern that a number of the relicenses are small projects, which have the downside of them possibly having limited resources and expertise on relicensing but the upside of the amount of actual work and paperwork not being as much as for a larger facility with bigger upsides, and so we are taking these things into consideration. I also want to note, existing licensees can continue to operate under 1-year extension if their relicensing isn't done by the time that their license expires, so no one is shut down if they are not relicensed before expiration. But to answer your

question, you know, we totally understand and have undertaken a flexible approach to approving requests for license term modifications to facilitate coordinated relicensing of projects that are located in the same sections as river basin, where periodically——

Mrs. MCMORRIS RODGERS. Excuse me. Excuse me, real quick. I appreciate that. I have very little time left. But would you also just speak very quickly to how hydropower could benefit the grid?

Mr. CHATTERJEE. It is a reliable, clean source of energy, and as we look to continue to squeeze carbon emissions out of the grid, I think hydro can play an incredibly important role.

Mrs. MCMORRIS RODGERS. Thank you. Thank you so much.

Mr. RUSH. The Chair now recognizes Mr. Doyle for 5 minutes.

Mr. DOYLE. Thank you, Mr. Chairman. And welcome to our FERC Commissioners, we appreciate you being here.

Last year, FERC determined that PJM's capacity auction structure was unjust and unreasonable with regards to the State-supported resources such as renewables or nuclear. And in response, PJM submitted a proposal that has been pending for a year. FERC suggested alternatives to this structure but has not yet released any details for an acceptable mechanism. FERC permitted PJM to delay its capacity auction from May of 2019 and hold it this August instead. That decision on a rule was supposed to come in January, but now it is June and we still haven't seen a rule.

So either a rule is going to be published right before August, which won't give auction participants enough time to adjust, or a decision will not be published and participants will have to take part in an auction under rules that FERC has found to be unjust and unreasonable. That raises lots of concerns and uncertainty. I am interested in hearing what the Commissioners say. When do you intend to issue this rulemaking, and what tools does FERC have to provide some clarity to this situation?

And, Mr. Chairman, I will start with you.

Mr. CHATTERJEE. Sir, so I have to be, and my colleagues and I all have to be very careful here. This is a pending contested matter, and our rules prevent us from discussing internal——

Mr. DOYLE. Well, I understand it is a pending case, but the reality is that you are creating a considerable amount of uncertainty here. PJM's capacity auction in May of 2018 procured 160,000 megawatts of capacity at a value of $9 billion. That is a lot of risk for companies to take in.

Mr. CHATTERJEE. Sir, we completely understand. At a very macro level, again not getting into the specifics of the matter before us, this is a vexing challenge. Because you have a situation where, two things that I think we all believe in, States' rights and the markets, are colliding. We all want these markets to succeed and to function and work properly, and we want to respect States' rights.

But we are coming to a point where actions that States are taking to make decisions about their local energy futures are impacting the markets, and trying to figure out how to sort through that while ensuring just and reasonable rates has proven to be very, very challenging. And so, while I can't speak against the specifics or timing, please understand we take this very seriously. We understand the need for clarity and to calm the markets, and we are working as diligently as we can.

Mr. DOYLE. Well, let me ask Commissioner LaFleur and Glick, are there any things that FERC can do to provide some guidance to PJM and provide some clarity if that is the situation, if we are not going to have a rule?

Ms. LAFLEUR. Well, I also can't comment on the merits of what is before us, but I am deeply, deeply troubled by the delay. And I had dissented in the initial order because I thought it would put PJM in an impossible situation, and I am afraid that is exactly what has come to pass. And I have been using my world-class powers of nagging to be a nag about it, but so far we have not gotten an order out. I think we have a lot of tools at our disposal, but we have to agree on them and use them.

Mr. DOYLE. Commissioner Glick?

Mr. GLICK. I have spent a lot of time in the private sector, and one thing I learned from working there is that you need regulatory certainty. Companies can't make investments without knowing where the government is going, so I think it is incumbent upon us to make a decision and act. Obviously, I can't talk about timing or the nature of it, but I do want to point out that you mentioned that, if the auction is held under the current rule, it may be considered unjust and unreasonable. So I am not entirely sure how the auction can go forward until there is some more clarity from FERC.

Mr. DOYLE. Well, let's hope that is sooner rather than later. This is June.

Commissioner Glick, let me ask you. Capacity markets don't consider the impact of carbon on the atmosphere in each generator's bid. Do you think capacity market rules should be rewritten to reflect this, and how do we protect States' rights in the process?

Mr. GLICK. Well, I think, in general, if capacity markets are run properly, I think that the most competitive resources will succeed. And I think in this case, and lately we have seen lower greenhouse gas-emitting technologies will certainly do well in those markets, I will say that I think that—I am not entirely sure if FERC has the authority to require capacity markets to take into account emissions, greenhouse gas emissions, but——

Mr. DOYLE. Do you think they should?

Mr. GLICK. Well, I think if Congress gave us the authority we should—we certainly can consider, and I know that PJM and New York are two ISOs and RTOs right now that are considering imposing some sort of carbon pricing regime. And I think we could consider that and maybe approve that, assuming it is just and reasonable. But I am not sure if we can do that on our own authority right now.

Mr. DOYLE. Well, I see my time is running out, but I would encourage you to please provide some clarity to what is going on with PJM. I don't know how they can hold an auction in August without a rule or without some direction from the Commission. I would urge that.

Mr. Chairman, thank you. I yield back.

Mr. RUSH. The Chair now recognizes Mr. Olson for 5 minutes.

Mr. OLSON. I thank the Chair, and welcome to our four FERC witnesses. A special howdy to a native-born Texan, Commissioner McNamee. Howdy.

Mr. MCNAMEE. Howdy.

Mr. OLSON. I want to start with a question to you, Mr. Chatterjee, that is very important to the people I work for in Texas 22 and my entire State. As you know, Houston is the heart of the American energy economy. We aren't just powering America, we are now powering the entire world. And as American energy becomes more dominant, that role keeps increasing for soon-to-be the third-largest city in America. We are going to overtake Chicago within 2 years.

Sorry, Mr. Chairman, but those are the facts.

Mr. RUSH. Don't bet on it.

Mr. OLSON. FERC knows that fact and that there is a need for FERC to adjust to that reality. I think it is high time that we have Commission staff right there in Houston, Texas, down where they are needed. You seem to agree. At the annual CERAWeek a couple months ago in Houston, you told the Houston Chronicle, "A Houston office makes a lot of sense." Can you talk about why a regional office in Houston makes sense, what are your plans to make it happen, and how can I help?

Mr. CHATTERJEE. Yes, sir. Thank you for the question and for your leadership in this area. How this all came about, there was a period last summer where I became genuinely concerned that we didn't have the staff and the resources in place to consider the number of LNG applications that were before us. And I truly believed there was a chance that we could miss this incredible American moment where U.S. LNG exports could benefit the economy, could benefit the environment by lowering global carbon emissions, and have geopolitical significance for America. But I was worried that FERC would miss our deadlines.

And so we frantically worked to hire the lawyers and the engineers that were necessary to streamline the bureaucracy. We had an MOU with PHMSA which enabled us to earlier this year we have now approved four LNG applications. We hadn't in 2 years; we have done four. That is very significant, and it is due to this hard work. But I want to make sure that as the next wave of applications comes through that we have the infrastructure in place to continue to consider them, because we are responsible not just for reviewing new applications but for existing approved facilities as well.

The expertise is in and around the Houston area. As you mentioned, you guys are the epicenter of the energy universe. That is where the schools are training the engineers and the lawyers who will do this work. And so, perhaps, you know, attracting and retaining the kind of talent we need to process this can be very difficult. Maybe having an office in Houston, which is something that we are actively working towards and hope to have an announcement on soon, would give us that venue to get the talent where it is, identify the people on the ground, and make sure that America continues to take advantage of this incredible opportunity.

Mr. OLSON. You brought up LNG, and that is my next question. Like you, I was worried a few years ago. FERC was being overwhelmed by applications for LNG export projects. You had some problems. Not your fault, but hey, getting somebody through the Senate, confirmed, delays, explosive permits, as you mentioned, manpower. And as you know, speed is the key to approval. We

have to have quick approval to make these things viable. Companies need to line up financing. They need to lock in buyers. These delays could have hurt our jobs right here in America. They could have hurt our allies who are craving our liquefied natural gas that are being stuck right now with gas from Mr. Putin.

But you and your colleagues turned that ship around through some challenging seas. We have now seen some key projects approved. You mentioned four. We have American liquefied natural gas going to India, Japan, South Korea, Poland, Lithuania, China, just to mention a few. We are exporting liquid American freedom. Can you talk about your challenges, how you got those approvals headed out the door, and what is next for LNG export rounds?

Mr. CHATTERJEE. Thank you, sir. So I mentioned some of the procedural things we did, the MOU with PHMSA, hiring people, cutting through bureaucracy, streamlining the process, but the most significant thing that we did because we had a timeline in which we needed to consider these applications and there are four of us at the Commission that have, you know, very strong views and we consider each application on a case-by-case basis, but I think one of the things that I am most proud of is myself, Commissioner LaFleur, and Commissioner McNamee came together to overcome what had been the biggest obstacle to our approving these projects, once we go through our application analysis, which was how to account for greenhouse gas emissions.

And Commissioner LaFleur didn't get everything she wanted but was willing to compromise. Commissioner McNamee gave some things up that he was reluctant to do but was willing to compromise. And the three of us came through and were able to negotiate a bipartisan compromise that enabled these projects to move forward, which is so important for America. And I am very proud of it, because it is an example of people putting the public good ahead of partisan interests. And as far as I know, I think we are the only three people in the Federal Government to have successfully negotiated a climate compromise, and it is a big deal for America on LNG, and it is something I am proud of.

Mr. OLSON. You all are the model for America in the future. My time is expired. I yield back.

Mr. CHATTERJEE. Thank you, sir. Can I quote you on that?

Mr. OLSON. Sure. It is public.

Mr. RUSH. The Chair now recognizes Mr. McNerney for 5 minutes.

Mr. MCNERNEY. I thank the chairman, and I thank the Commissioners this morning.

Commissioner LaFleur, you mentioned some interesting comments about how to pay for selected resources in your statements. Would you expand on your comments and include how it might affect reducing greenhouse gases?

Ms. LAFLEUR. Yes. What we are seeing is that right now many States, including your own, have taken a pledge to do all they can at the State level to mitigate the impact of climate change, and they are doing it by in many cases selecting, requiring either carbon targets or percentages of clean resources or carbon-free resources. And they are also doing it in some cases by subsidizing carbon-free resources that would otherwise be retiring.

What we are finding is that in regions with multistate markets, when different States have different rules it is difficult for the markets to accommodate that. And that is why we have been doing a lot of work in our dockets, as in the ISO New England docket, to put in place new rules where States can—because other resources are bidding into the markets without any subsidy or in States that don't have any carbon rules, then how do we fairly price all of this. That has been a significant issue.

Mr. MCNERNEY. Thank you.

Commissioner Glick, do you feel that the electric grid can both expand service, say, to the transportation sector and reach 80 percent of penetration with renewable sources, and if so, how soon do you think we can do that?

Mr. GLICK. I don't want to make a prediction about what year that might occur, but I am certainly confident that we can do it. I think there have been a number of studies both at NREL and various RTOs around the country that show that much greater penetrations of renewable energy are possible with very limited changes to transmission, for instance, and do it reliably.

I will give you examples. Iowa, Kansas, Oklahoma, all three of them already currently have more than 30 percent of wind power just on their grid. SPP, one of the RTOs in the region, has, I think, had a couple times where they were over 60 percent renewables just at one particular time and no reliability problem. California ISO, I think 76 percent, if I am not mistaken, 1 day earlier this year. So there are enormous possibilities there, and I think they can be done relatively quickly, but I can't give you an exact actual year.

Mr. MCNERNEY. Thank you. That is pretty exciting if we can reach 80 percent with renewables, you know, in a reasonable time frame.

Chairman Chatterjee, the FERC has approved the natural gas pipelines and LNGs, and that sounds good. But if only 2 percent of the natural gas escapes through to the atmosphere, then we are going to be in worse shape than if we used coal. So are you taking leakage into consideration? Are you putting in high standards for the pipelines that are going in and for LNG? I mean, this is a pretty serious issue in my mind.

Mr. CHATTERJEE. I understand, sir, and we take very seriously our responsibility to evaluate the safety and environmental considerations of the energy infrastructure that we consider, and we look at each project on a case-by-case basis. What I can say is, you know, the U.S. is currently at 1990s levels when it comes to carbon emissions in the power sector. I think that it is direct——

Mr. MCNERNEY. But it is not just carbon. I mean, natural gas emissions are very much stronger in terms of greenhouse gas effects than carbon.

Mr. CHATTERJEE. But, sir, I think we are seeing market forces and the deployment of clean energy——

Mr. MCNERNEY. But the question is, are you putting high standards in for these pipelines?

Mr. CHATTERJEE. I believe we have the highest environmental standards and will continue to enforce them.

Mr. MCNERNEY. Thank you. Also, regarding cybersecurity, Mr. Latta and I introduced H.R. 359, the Enhancing Grid Security Through Public-Private Partnerships Act. Would you speak about how this and other cyber legislation would add the better defense at the grid?

Mr. CHATTERJEE. So I am not familiar with the specifics of the legislation. Can you just give me a sort of top line on what it would achieve?

Mr. MCNERNEY. Well, it uses public and private resources to give grid, the electricity companies, the resources they need to implement cyber measures.

Mr. CHATTERJEE. I would like to look at it more closely, but again, based on that description it is certainly something that I am interested in. As I mentioned earlier, the cybersecurity, I believe ensuring the reliability of the grid is the most important job that my colleagues and I play. Cybersecurity is a real threat, and we all have to remain vigilant on it. And I applaud you for your legislation.

Mr. MCNERNEY. Briefly, what reliability gaps still exist that could be addressed by legislation?

Mr. CHATTERJEE. So, look, we have to constantly remain vigilant in ensuring the reliability of the grid. I do believe that the U.S. grid is the most reliable on the planet, but we are increasingly facing threats from hostile actors, and we need to do what we can. We discussed it earlier, the potential vulnerabilities to the cybersecurity or physical security of our pipeline infrastructure. That is certainly an area where we need greater focus.

Mr. MCNERNEY. All right. Thank you, Mr. Chairman.

Mr. RUSH. The Chair now recognizes the ranking member of the full committee, Mr. Walden, for 5 minutes.

Mr. WALDEN. Thank you, Mr. Chairman. Again, to all of you, thanks for your service to the country and thanks for being here today to help us do our proper oversight. Under my chairmanship of the full committee, we prioritized policies that I think were both good for consumers and the environment. And we said they weren't mutually exclusive, either. You can do both. In the last Congress, in fact, this committee passed more than a dozen bills signed into law to give FERC new authorities and streamline existing processes to encourage new hydropower development and bring more accountability to the ratemaking process.

So what I would like to know is, what is the status on FERC's implementation of these bills, which were incorporated into the America's Water Infrastructure Act of 2018? And so, I might go to Chairman Chatterjee. If you can, can you give me an update on what you are finding, what you are implementing, what is working, what is not, what do we need to do improve upon? Because I think hydro, to Mr. McNerney's point on some of the other sources of energy, hydro, we know, has no emissions to it. And so, we would like to know how you are doing implementing this.

Mr. CHATTERJEE. Thank you for the question and for your leadership on this issue as chair of the committee. You know, over the past few Congresses, this committee has pushed an infrastructure legislative reform initiative that included hydropower licensing reform. When it comes to implementation of these, where the provi-

sions further details into the regulations that FERC was directed to promulgate pursuant to the America's Water Infrastructure Act of 2018, we are working on it. I think that shared decisionmaking in the regulation of hydropower projects has complicated the Commission's efforts to timely and efficiently process applications.

Mr. WALDEN. Right.

Mr. CHATTERJEE. In particular, these large, complex relicense applications in certain regions. And therefore, I totally support the efforts that you all have made to streamline the hydropower review process. Having said that, the committee already attempts to set schedules for agencies, but none of that overrides these agencies' independent authority for the processes under their own statutes.

Statutory requirements give other agencies a significant role in the licensing process, thus limiting our Commission's control of the cost, timing, and efficiency of licensing, but it is something that we take very seriously are working towards.

Mr. WALDEN. But in terms of implementing, the regulations to implement these laws, what should we look for in terms of timing on that?

Mr. CHATTERJEE. We don't like to make predictions on timing, but please know that we are taking it very seriously.

Mr. WALDEN. All right, good, because we——

Ms. LAFLEUR. We vote.

Mr. WALDEN. Yes.

Mr. CHATTERJEE. Commissioner LaFleur reminds me that we did vote this out at our April open meeting.

Mr. WALDEN. April, OK.

Ms. LAFLEUR. I believe it was April, yes.

Mr. WALDEN. Yes. I know you are all juggling a lot like we are, so we appreciate that.

Ms. LAFLEUR. We made it by days in the statutory deadline to get the regs out. The staff did a great job.

Mr. WALDEN. Well, now I am going to give you a gold star. I think you are the only agency that has met things—well, anyway.

So I mentioned in my opening about constriction points and bottlenecks, and I know the Northeast suffers from it. And I am just curious, you know, we did 11 hearings on electricity issues and grid modernization pricing, electricity markets, because we are concerned on the electricity side especially about this, but we know it is more than that. And I just wonder what kind of barriers you have identified to the development and deployment of new technologies that will harden the grid, reduce emissions, and allow for new transmission infrastructure. What are you seeing on the ground around the country that we need to be aware of that is holding back our ability to get more less-emitting energy sources onto the grid?

Mr. CHATTERJEE. So what we have seen is just, you know, there are some obstacles in place in the various RTOs and the ISOs to new entrants, to new technologies in that, you know, legacy incumbents have procedural processes in place that they can use to prevent some of these new technologies from being compensated for the attributes that they provide.

And so, I think, I point to Order 841 on battery storage that we were able to pass in 2018 and that we just dealt with on rehearing

as a major breakthrough to enable battery storage technology to be compensated for all of the attributes and resources it provides in terms of energy capacity and ancillary services. We are now currently working on distributed energy aggregators to see similarly what barriers to entry there could be for these resources and the attributes that they could provide. And we will take the same careful, thoughtful, and legal approach that we did in addressing battery storage in considering that docket.

Mr. WALDEN. Good, because I know some of that is starting to come to fruition. There is a project in my district that is going to be, I think, 300 megawatts now. I was told of one out of Texas, I think, where it is 300 megawatt hours, which is different. They can deal with the duck curve and maybe have 4 hours of storage. So are you seeing more and more of those sorts of combined projects coming to fruition since that order?

Mr. CHATTERJEE. I can let my colleague——

Mr. WALDEN. Yes, anybody that wants to——

Ms. LAFLEUR. I think we are seeing more proposals to develop storage and renewables——

Mr. WALDEN. Good.

Ms. LAFLEUR [continuing]. In tandem, almost like we developed nuclear and pump storage together in the '60s. And on your other question on the choke points, I would say one of the biggest issues we have is the difficulty of building long-line transmission between regions——

Mr. WALDEN. Yes.

Ms. LAFLEUR [continuing]. For the location-constrained renewables like the wind in the Midwest. And there are a number of reasons, but I think the State control of siting and the difficulty of going across multiple States is one of them. There was a company called Clean Line that tried to build HVDC——

Mr. WALDEN. Right.

Ms. LAFLEUR [continuing]. And almost—they hit one State on every line, now somebody is trying to take a couple of their routes. But I think that is the thing where Congress could maybe restore backstop siting would be really helpful.

Mr. WALDEN. All right. My time has expired. Thank you, Mr. Chairman. And thanks to all of you.

Mr. RUSH. The Chair now recognizes Mr. Tonko for 5 minutes.

Mr. TONKO. Thank you, Mr. Chairman.

I welcome all of our Commissioners here today. I believe all of our Federal agencies need to do more to consider how to best address climate change. I believe an approach that is science-based, evidence-based is essential. Commissioner LaFleur mentioned earlier that it is difficult with climate processes that are different in each of the States or regions. We need a national approach. It is time for us to get into gear.

That being said, Commissioner Glick, I was very happy to see a recent Law Review article about FERC and climate change. Commissioner, do you believe FERC can and should be doing more under its existing obligations to consider climate change? I know we heard from a couple of our Commissioners. I would like to hear from you.

Mr. GLICK. Well, as I mentioned earlier, the Commission is not an emissions regulator. Obviously, that is up to EPA and the States and other branches of the Federal Government. But I do think there are a lot of things that we do, and that was the purpose of that article that I jointly wrote with one of my advisors, is that there are a lot of things that we do that have a significant impact. And the Chairman mentioned eliminating barriers to newer technology storage, distributed energy resources, wind, solar. That certainly would be very helpful. Building more transmission to access remotely located renewable resources, certainly another benefit.

And then, as we discussed earlier, just our analysis when we consider the public interest, whether it be a hydroelectric license or a natural gas pipeline or LNG facility, we are supposed to consider the environmental impacts, and I think we definitely need to take greenhouse gas emissions into account.

Mr. TONKO. Thank you. And I would like to focus on a few areas where barriers for market participation exist, many of which, in my view, are inhibiting our electricity systems transition to one that is cleaner.

Chairman Chatterjee, I would like to thank you for your leadership in ensuring that storage can compete in markets. As RTOs seek to comply with Order 841, how important is it that energy storage resources will actually be able to participate effectively in all markets, including capacity markets?"

Mr. CHATTERJEE. Yes, I can't say enough how bullish I am on the future of energy storage. And I say this frequently, and people roll their eyes because they think it is a cliché, but I think energy storage is a game changer and I think it has the capacity to fundamentally alter the way that we generate, distribute, and consume power in this country. And I think the point of Order 841 was to ensure that storage technologies could be compensated for energy for capacity and for ancillary services. I am optimistic and hopeful that that will lead to a rapid and exponential increase in the deployment of these resources.

I think increasingly seeing storage coupled with renewable resources like solar could address some of the intermittency and reliability concerns and will really accelerate the deployment of clean energy technologies, which is good for America, which is good for the economy, and is good for the environment.

Mr. TONKO. Well, I would encourage our Commissioners to make certain the rule is implemented as was intended by all the Commissioners and enable the greatest participation possible for these resources. Similarly, I would encourage the Commission to move forward with finalizing the aggregated DER rule. As I recall, in February 2018, the FERC organization found it needed more information, and I believe there was a technical conference—was it in April of 2018? Now we are in June of 2019. There was a need to break down market barriers for DERs 3 years ago, and there is now an ample record.

So what can we expect here? When will this be finalized? Is there other information that you are waiting for? What is the update on the DER rule?

Mr. CHATTERJEE. Sir, if I could just speak to that. So we had originally, in 2016, under Chairman Bay's leadership, considered both the storage rule and DERs together. As some of the newer members—myself, Commissioner Glick—came to the Commission, we realized that both rulemakings were further behind than we thought they were in the process prior to our confirmation. We were further ahead on storage than we were on DER. And so we made the decision, since storage was ready, to move forward with it despite the fact that we still had more work to do on DER.

I made a commitment to Commissioner Glick at that time that, as long as I was serving on the Commission, as Chair or not, that I would not allow DER to languish. We continue to work on it. There are some legal questions that we need to answer. I don't want to make a prediction on timing. We don't do that. But please know that we are all working diligently towards addressing that.

Mr. TONKO. So there is no more information, you are just going through the——

Mr. CHATTERJEE. We have some complex legal questions that we are currently wrestling with. I don't like to comment on our internal deliberations, but there are some complex legal challenges. I do believe we have sufficient record, it is just we made some additional things to address some legal questions.

Mr. TONKO. OK. I would just hope that we could complete that as soon as possible, because it is so important to the future of the industry. Thank you.

With that I yield back, Mr. Chair.

Mr. RUSH. The Chair now recognizes Mr. McKinley for 5 minutes.

Mr. MCKINLEY. Thank you, Mr. Chairman.

Earlier this year, Secretary Moniz, former Secretary Moniz, came out with a statement that he was saying that we just don't have enough battery backup in the long term. He says there is nowhere near enough to back up the power on the high-voltage grids in the long term. Now building off that, the supply chain for battery development is becoming more and more dependent on foreign sources. And "60 Minutes" just came out with this report on Sunday talking about, for example, rare earths and our dependency on something where China is dominating 80 percent of the rare earths. But yet for battery storage, we are relying on Chile, Argentina, the blood diamonds of Congo to get our cobalt, and we are also in Asia.

So we are becoming more and more reliant on other—because we don't want it in our backyard. We don't want to harvest these minerals in our backyard. How is that going to interact our ability to sustain or to develop this battery storage capability, if we are depending on other Nations? So, Mr.—Secretary Chatterjee, could you tell us a little bit about that please?

Mr. CHATTERJEE. Thank you for the question, sir. So as to, you know, critical minerals and their availability, that is outside the purview of the Commission. I do have some familiarity with it during my time in Congress. I recall legislation being introduced in the Senate to address the very questions that you raise. I will say from our standpoint as an economic regulator, I can't speak to the sup-

ply chain and what component parts go into battery technology. Our role doesn't fit there.

But what we do is, you know, enable the—in our oversight of the markets to enable these technologies to be deployed in markets, and so the market demand is going to be there because of some facilitations that we have done through our rulemakings. But I leave it to others to speak to the dynamics of the component parts——

Mr. MCKINLEY. I hope we can get back and have more of a conversation about this, because I think it is going to be something that we are going to have to address, and I would like to understand what Congress can do to help expedite that. But let's continue on that, because I have a high regard for former Secretary Moniz when he was with DOE and now in his role speaking out.

He is continuing to say—he said it first in 2013 and he said it again earlier this year that we need to be spending more time and focus on carbon capture and nuclear energy. Now he said that in '13. And so, from '13 to '19, during the 6-year period of time, coal utilization went from 40 percent down to 23 percent, and in that same time, nuclear power, they are going to be over 10 percent of their capacity is going to be lost.

So my question in part, given that what we were just talking about, about battery storage, if we don't have the capability of being able to have battery storage now, what is going to happen—what is the challenge to the grid for dependability, reliability, and resilience if we are losing more coal production and we are losing more nuclear and we don't have battery storage? What is the impact?

Mr. CHATTERJEE. Sir, so thank you for the question, and again, you and I have had numerous conversations about this and you are very passionate about it. I, like you, come from coal country, and I have seen firsthand the devastation that occurs in communities when the plants and the mines that feed them shut down. Similarly, because of my concern about carbon mitigation, I am worried about the retirement of nuclear generation.

What we are doing at the Commission is closely examining whether, in fact, some of the concerns that you raise could come to fruition, whether the premature retirement of some of these units, could they lead potentially to—depending on the deployment of other technologies and other resources—to an impact on the reliability and the resilience of the grid. Thus far, as I mentioned earlier, when Secretary Perry submitted his NOPR, our record did not support taking action in that area. We currently have a far more robust record in front of us as we examine the question of resilience. We are going to be very, very careful about it, to look to see what the energy transition, its impacts are going to have, but any action we may or may not take has to be based on the record, has to be based on the evidence, and we will very, very thoughtfully and carefully examine that record.

Mr. MCKINLEY. In the closing seconds I have, I would just like—maybe it is the elephant in the room. We don't have a fifth Commissioner. Would having a fifth Commissioner, would that expedite some of the rules that have been sitting there for—we heard earlier, some of the time that they haven't—no action has been taken. Would a fifth Commissioner move things along?

Mr. CHATTERJEE. I think the Commission is always strongest when it has a full complement of five Commissioners. That said—and I want to see five full Commissioners here. But I point to the bipartisan agreement that my colleagues and I reached on LNG as well as on battery storage that were 3–1 votes that had different combinations of us, and I think that is a great example of how we are continuing to get our work done despite the fact that we are in a 2–2 environment.

Mr. MCKINLEY. Thank you. I yield back.

Mr. CHATTERJEE. Thank you.

Mr. RUSH. The Chair now recognizes Mr. Welch for 5 minutes.

Mr. WELCH. Thank you, Mr. Chairman. I will start with a man-bites-dog story. The largest utility in Vermont has a lot of dams, and they are going through relicensing and they tell me that working with FERC is tremendous. So I don't know how that happened, but maybe you ought to get the word out to some of your other agencies.

Second, I want to thank Commissioner LaFleur for coming to Vermont. We appreciated having you, and someday your colleagues may show similar good judgment. Third, I want to talk about battery storage technology. Last week, I visited a company in South Burlington, Vermont, called Dynapower, and it is by most standards a small company, a couple of hundred people, big by Vermont. But it is doing cutting-edge work on battery storage.

And we have talked a little bit about the incredible benefit to reduce peak demand, and I want to thank you for your Order 841, which was a great step in integration of storage into the wholesale markets, but we do have some issues. In PJM there is a proposed method to use a 10-hour duration test, as I understand it, to qualify energy storage for capacity market participation. This is what I learned from the Dynapower folks. But most commercial and industrial facilities which could provide really good resources to the grid do not require a 10-hour duration system, and the cost would be prohibitive. And MISO transmission service charges are being inappropriately applied to storage. It charges at the instruction of the grid operator.

So there are similar examples, I guess, in NYISO in the Southwest Power Pool. So on one hand, I thank you very much for your work on Order 841, but we really want to ensure that storage can undertake market operations that fully realize the value of their flexibility. So I will start with you, Mr. Chairman. Can you comment on your view on how these efforts and how FERC intends to support full use of the storage resources, which, in addition to saving money and reducing carbon emissions, is just a tremendous growing part?

Mr. CHATTERJEE. Sure. As I have stated repeatedly, I am very proud of the rule, and I think it is a tremendous achievement. And I think the implementation challenges that you are pointing to demonstrate the sheer gravity of the rule and its implications and how really significant it may be. I think we may look back and say that Order 841 was, you know, a foundational block of transitioning our energy future.

So, as the compliance filings come in, as the various RTOs and ISOs sort through some of the complexities that you are referring

to, we will consider those compliance filings as they come in. And I think my colleagues will all do our part to ensure that the rule is implemented.

Mr. WELCH. Well, you know, I appreciate that, because there has got to be practical adjustments made as a result of what is going on in the field.

Do you want to comment on that, Commissioner LaFleur?

But thank you for that.

Ms. LAFLEUR. Yes. I can't comment on the specific PJM dispute that you mentioned because I believe that is pending. But your questions and what you hear from the battery manufacturer show that the devil is really in the details. It is easy to say we want the market rules to be fair to storage, but figuring out where all the landmines are where the rules have been written for other resources requires the various storage providers to come in and tell us and requires detailed work at HRTO. A few years ago, when we did Order 755 on frequency regulation, we had a company called Beacon Power in upstate New York come in and tell us they weren't getting paid right for the timing following the signal. And we had to get really picky-dicky——

Mr. WELCH. Right.

Ms. LAFLEUR [continuing]. In like explaining how to change the rules. But we later did change the frequency. That is just one small example.

Mr. WELCH. Well, that is great. I don't have much more time, but, you know, it is very reassuring to hear that, because you do the rule and then it is out in the field and then there has got to be information back from the field. And when, like, for instance, if Dynapower gets back to you with real-world information, you will pay attention to that, is what you are telling me, and that is really reassuring.

The one final question, you know, a number of us, we are interested in distributed energy resources, and we wrote a letter. I had a letter on the topic to FERC and I appreciated your response. That was some time ago, and it appears we share a goal. But my question is this: For 2½ years since the original proposed rule and over a year since the technical conference on DER was held, in recognizing this timeline, what is FERC's plan to finalize the rule on DER participation and wholesale markets, Commissioner?

Mr. CHATTERJEE. Yes, thank you for the question. I will be very brief. Congressman Tonko asked the same. We originally were doing DERs and battery storage together. When we came—when Commissioner Glick and I were confirmed to the Commission, we saw that storage was further ahead than DERs, so we severed the two dockets and completed storage, because we didn't want to delay it while we sorted through the complexities of DERs.

We are now actively working towards it. I made a commitment to Commissioner Glick that we would not allow DERs to languish, and I intend to honor that. And so, there are some complex legal issues that have arisen, and we are just sorting through whether that will require more process or not.

Mr. WELCH. I yield back.

Mr. RUSH. The Chair now recognizes Mr. Griffith for 5 minutes.

Mr. GRIFFITH. Thank you very much, Mr. Chairman. They have called the votes, and so I will try to rifle through what I have. But first, I have to say congratulations to you, Commissioner McNamee. The Commissioner and I have worked together for many years at the State level, and I am now glad to be able to work with you at the Federal level as we go over a lot of issues. I appreciate the Commission's work on executing the rulemaking process for the Promoting Closed-Loop Pumped Storage Hydropower Act, which was my bill from last session. I also appreciate the Commission-led workshop on closed-loop pump storage.

That being said, Chairman McIntyre had a review going on about current pipeline approval processes based on the FERC 1999 standing policy. I would hope that you all would continue that. Chairman Pallone of this committee mentioned earlier about having two pipelines, you know, going side by side and the Commission doesn't look at that. That is one of the reasons why I introduced the Pipeline Fairness and Transparency Act. Maybe you need two pipelines going side by side or close together, or maybe you don't, but the Commission ought to be able to look at that.

And I will tell you that one of the concerns that comes up there is affecting how landowners' rights are being considered. And I appreciate your comments earlier this year, and speaking with Commissioner McNamee I know he is concerned about some of these issues too, that people at least get heard and know that somebody's listening, because it has seemed that sometimes there is some deafness, or in the past has been some deafness there.

And I received this this morning from a constituent, and I am just going to rattle it off and then give you whatever time we have got left: "Landowners dealing with the siting of natural gas pipelines are frustrated, and we have no property rights in the current FERC process. There are lots of assurances that our rights are respected, and the companies advertise that they will work with landowners. However, our experience has proved all that to be patently untrue.

"My experience is that they won't consider the needs of my family's existing business, a farm of over 117 years. We have asked repeatedly that they move the pipeline to the edges of our fields so that we can fully respect the pipeline as we go about our business. They insist on bisecting nine fields and will destroy the terraces in one of our fields. They have the opportunity to move the line within our property, thus not affecting anyone else, but they won't."

And the concern that—and she is getting hit twice. She lives in my district near the Mountain Valley Pipeline, and her property is a family farm that she hopes to retire to that is being dissected by the Atlantic Coast Pipeline. And so, these are the concerns that people have out there. I know you can't fix everything, but she wants to know, and I do too. What are the FERC Commissioners doing to understand landowners' rights, to make landowners believe that they see the documents that we file? I mean, you all see—and to hear the statements that we make in hearings, and that those needs are being considered. And I know that you have some thoughts on that. Chairman, if you could very quickly.

Mr. CHATTERJEE. Yes, sir. So I mentioned earlier, we are trying to make some improvements to our website and our process. We do

have a Landowner Hotline so that the Commission can be made aware of these kinds of considerations. I think we need to do better. We can do better. I think energy infrastructure is critical, it is important, but we have to ensure that we are respectful of landowners and their considerations and their rights.

I also think it is incumbent upon project sponsors to be more responsive. You know, the landowner and the project sponsor are going to have, you know, a long-term relationship, and I think it is important that project sponsors be responsive and be respectful of these landowners' considerations.

Mr. GRIFFITH. Yes. And I don't know the lay of the land, but when a farmer is telling me a family farm that is over a 100-andsome years in the family, you could move it on their property, it may be a little bit more expensive, but it seems to me that would be a reasonable accommodation.

Mr. CHATTERJEE. And one thing that you have expressed to me in the past that I take very seriously is, we need to do a better job at the Commission of hearing out peoples' concerns. And if that means—if landowners are seeking, you know, public comment and opportunity to present their considerations to the Commission, we need to be responsive to that. My understanding is that you have been frustrated because in the past, maybe a few years ago, we weren't as responsive to that. I want you to know that you have a commitment from me that we are going to take those kinds of things seriously.

Mr. GRIFFITH. I appreciate that, and I yield back.

Mr. CHATTERJEE. Thank you.

Mr. RUSH. The Chair now recognizes Ms. Kuster for 5 minutes.

Ms. KUSTER. Thank you very much, Mr. Chair. And we have been called to vote, so I will make my remarks short. But I want to join my colleague in a bipartisan concern. We have this very same issue in my district in New Hampshire with a pipeline and lots of obvious concerns by homeowners, by towns, by—one town where it was on the map to cross a small stream in that community 12 times, I just had the impression that these people hadn't even come to New Hampshire or at least gotten out of the truck to see it. It was proposed to go right between two schools that were a couple of hundred yards apart, so—and I would invite my Republican colleague to join us.

I am joining Congresswoman Jan Schakowsky and Joe Kennedy today, introducing legislation to establish an Office of Public Participation at the FERC to elevate the voices of average Americans and ensure that they have a seat at the table when FERC makes approval decisions. We can only ask so much of you if it is not within your purview to take that into consideration. So that was the main concern I wanted to raise.

The second thing, though, is about the issue of climate change. And in New Hampshire, as in districts all across this country, I believe that climate change poses a very real and existential threat to human life, and I think we can look no further than the Trump administration's own national climate assessment, outlining that, without dramatic reductions in greenhouse gas pollution, our economy will lose hundreds of billions of dollars in the coming decades,

and not to mention the irreversible impact on human health and environment.

So I just want to ask you, Commissioner LaFleur, my constituents voice concerns repeatedly. This is on a daily basis. We get emails and calls and letters about the dramatic expansion of natural gas infrastructure because of the contribution to greenhouse gas emissions. I understand your tenure on the FERC is coming to a close, but do you believe the damaging effects of climate change should be more strongly considered when FERC approves fossil fuel projects?

Ms. LAFLEUR. Thank you for the question and yes, I do. I think that first of all we should make sure that all of the pipelines that we are approving are truly needed by looking at the regional need. I happen to think New England, where there are a lot of gas restraints, might need more gas, although they are doing well with the import in the winter so far. But in addition to making sure things are truly needed, I think that we should take into account in our balancing the impact of the downstream combustion of the gas when it is used.

And I have tried to do that on my own by doing some of those figures, and my concurrence isn't saying no, for example, in the two colocated pipelines that Congressman Griffith talked about. I had dissented because I thought they were too close together, but I think it would behoove the Commission to have a process to more squarely consider it.

Ms. KUSTER. Thank you very much.

And, Commissioner McNamee, I understand FERC's responsibility to approve energy projects that are in the public interest. Do you believe that mitigating the damaging effects of climate change are in the public interest and the interest of future generations of Americans?

Mr. MCNAMEE. I think, I believe that climate change is something that we all need to be concerned about. I think the issue about how FERC addresses the issue of climate change and greenhouse gas emissions really has to originate first in our organic statute about the authority, and that is the Natural Gas Act and how that is supposed to be used to interpret public interest.

Ms. KUSTER. Do you interpret that law is giving you any leeway on taking into account the damaging impacts of——

Mr. MCNAMEE. Well, I can tell you that I—what I do is I also look at our obligations underneath, but to take a look at all the environmental issues, including climate change, when I make a decision. I don't think it would be appropriate because it is a legal issue that comes before us about what does the statute specifically mean, but I do—I can say that we do take a serious look. I personally take a serious look at the issues of greenhouse gas emissions, particularly pursuant to our NEPA responsibilities.

Ms. KUSTER. Great, thank you very much. I yield back.

Mr. RUSH. The Chair thanks the gentlelady.

Votes are occurring on the floor, and the subcommittee will stand in recess until immediately after the votes have concluded.

[Recess.]

Mr. KENNEDY [presiding]. The committee will come back into order, and the Chair recognizes Mr. Flores from Texas for 5 minutes.

Mr. FLORES. So, thank you. I appreciate all of our FERC Commissioners for joining us today.

I have a question for Commissioner Glick. You have dissented against approval of some recent energy infrastructure projects that are integral to our country's energy security, national security, and economic opportunity including the Port Arthur LNG export project in my home State of Texas. These critical energy infrastructure projects create well-paying jobs at home, they help our allies in Europe diversify their energy security, and they reduce the impact of dirtier fuels that are replaced by clean LNG.

In your dissents and in testimony today, you mentioned the need to explore possible mitigation measures with respect to greenhouse gas emissions, and I would like to know more about what you mean by this. My first question is this: Do you have a mitigation standard by which future energy projects could earn your approval?

Mr. GLICK. Well, thank you for the question, Mr. Flores. It is actually a very important issue. And, you know, if you go back and look at all of our approvals—and Port Arthur is a good example—we found other environmental concerns, for instance, wetlands, loss of wetlands associated with the project or migratory birds, for instance, in some cases.

Mr. FLORES. Do you have a mitigation standard?

Mr. GLICK. And what we did in those cases, we actually mitigated those losses essentially. So I don't know if I have a single standard, but one potential option, certainly, a company could buy renewable energy credits and could certainly use renewable energy or zero emissions like nuclear power to liquefy the natural gas. There is a variety of options for the company.

Mr. FLORES. OK. Well, if you have more, go ahead and supplementally advise that. My next question is this, is what your mitigation expectations might be and, more importantly, what are the costs of those mitigation measures, including the following: What is the impact on project delay costs; what is the impact on lost jobs; what is the impact on balance of trade payments; what is the environmental impact while the prospective consumers using your dirtier fuel that would have been replaced by the fuel that you are dissenting coming from the project against which you are dissenting; and then the lossed tax revenue to the Federal Government as well as impact on the deficit?

Mr. GLICK. Those are all relevant points, and I think that we are required to consider what is in the public interest, and all those issues need to be considered as well. But if we find an environmental impact to be significant, we have to figure out whether that impact can be mitigated or not, and in this case in the LNG facilities, we specifically said we are not going to consider that. And that is where I think the Commission erred and courts have agreed so far.

Mr. FLORES. OK. What I would like to get you to do is supplementally advise as to what the cost of the mitigation is because of the dissent, if you would.

Mr. GLICK. I will try my best.

Mr. FLORES. OK, thank you.

Chairman Chatterjee, I have a question for you. This has to do with the power markets. In Texas, ERCOT allows large consumers to participate in a power market that drives competition, innovation, and efficiency. It has also brought more renewable into the Texas grid. It is my understanding that our neighboring RTO, the Southwest Power Pool, has only one large consumer, and that is Walmart, which joined a while back, and Texas has about 170 consumer members by comparison.

FERC recently ruled regarding a fee at SPP that some considered to be a hefty barrier to participating in the market, while the good news is ERCOT is not subject to FERC jurisdiction and most Texans want to keep it that way. Texas consumers are benefiting by having that other 170 large voices as part of the market, and I think the country can learn from the experience of ERCOT.

So what—are other RTOs opening up their membership to more diverse consumer technology interests to help drive up choice, to improve efficiency, to improve the implementation of additional renewable energy sources into their grids, and to additional clean energy supply?

Mr. CHATTERJEE. So, obviously as you referenced, Congressman, we don't—ERCOT is not jurisdictional to us, so I don't have as much visibility into what goes on in Texas. I learned my lesson, don't mess with Texas, but——

Mr. FLORES. That is a good idea.

Mr. CHATTERJEE [continuing]. Each of the different RTOs and ISOs have various different, you know, governance approaches as well, these are just different organizations. So what I can speak to is that all of these entities can and should learn from each other, including from ERCOT.

Mr. FLORES. OK. That actually answers my second question, is that should the other RTOs move in the same direction that ERCOT has and that the SPP has been blocking but now they are starting to move that direction?

Mr. CHATTERJEE. There are different challenges and opportunities in different parts of the country. I am not certain—there are no one-size-fits-all approaches, but we can all do better to learn from each other.

Mr. FLORES. Right, OK.

And, Chairman Glick, we will provide the rest of our questions supplementally.

Mr. GLICK. Thank you.

Mr. FLORES. Thank you. I yield back the balance of my time.

Mr. KENNEDY. The Chair thanks the gentleman from Texas and recognizes himself for 5 minutes for questions. I want to thank the chairman, the real chairman, for holding the important hearing, and for all of our Commissioners for being here today.

As I mentioned in my opening statement a little bit earlier, I am increasingly concerned about the regional transmission organizations, or RTOs, and their governing structures. My State benefits from the wholesale market competition at ISO New England, and that means that it is affected by the decisions made by NEPOOL, the sole formal stakeholder advisory group for ISO New England. However, my fellow citizens and I have no idea who makes deci-

sions or how they are made at NEPOOL, because unless you are a member you can't even observe any meeting or proceeding, let alone talk about it publicly.

Other RTOs are benefiting from governance structures that enjoy slightly more transparency, still I believe that more has to be done. Transparent and fair representation in governance is good governance. All parties from generators to ratepayers to regulators deserve this. In addition, regional markets operated by the nation's RTOs continue to grow in size and complexity.

Mr. Glick, you pointed out earlier your experience in the private sector and about the importance of stability. In my region, for example, ISO England has now run 14 different forward capacity auctions under 14 separate sets of rules. Finally, RTO rules are also increasingly, or increasingly, effectively create new public policies. Some regional grid operators are debating whether to adopt new rules to compensate fuel security, yet RTOs are governed by industry stakeholders, many of them who have an incentive to earn revenues through higher prices in these markets.

So beginning with Commissioner LaFleur and Commissioner Glick, are you concerned about certain stakeholder groups that have an outsized amount of power in some RTOs with the current structures of governance? Ms. LaFleur?

Ms. LAFLEUR. I do think these are important issues. I was on the Commission when we did the 719 compliance orders, and we looked at the stakeholder processes of each RTO and basically found them acceptable. They had different sets of stakeholder bodies and so forth. But I agree with what I have heard said earlier, that it is probably a good time for a relook. I think that initially the transmission owners probably batted above their weight because they were the ones that had to decide to go into the RTOs, and so the RTOs were so grateful to have them, they seemed to have a louder voice.

I would say recently we have been hearing more from the generation sector, because with all of the changes in resources they are on the hot seat, and no group should have more power than their role in the stakeholders, so I think we have to be vigilant toward it, and it is probably worth a relook.

Mr. KENNEDY. Should the public have more access, even just as a passive observer?

Ms. LAFLEUR. Well, you know, we have a case pending rehearing on press access to NEPOOL which we, the Commission ,ruled that we didn't have jurisdiction over under the—from the CAISO case. But I think most members of the public can't afford to take the time off from work to go to all of the stakeholder meetings of their RTOs, so bodies that represent them, be they consumer groups to the——

Mr. KENNEDY. Madam Chair, or excuse me, Commissioner, that the press that is also the——

Ms. LAFLEUR. I can't comment on that because that is still pending.

Mr. KENNEDY. Right, understood.

Ms. LAFLEUR. But I think Mr. Glick wrote separately, so I will let him talk.

Mr. GLICK. Yes. I certainly can't comment on the existing proceeding which is on rehearing——

Mr. KENNEDY. Of course.

Mr. GLICK [continuing]. But I will say what we did previously, which is that Commissioner LaFleur is exactly correct. We actually said we didn't have the jurisdiction, and that is because the courts have told us that we only have jurisdiction over practices affecting jurisdictional rates.

Having said that, I wrote separately, because I agree with you, Congressman Kennedy, that transparency is a very important element of appropriate RTO functioning. And to the extent that we are keeping the press out or keeping people out from knowing what is actually happening behind the closed doors, we aren't actually having the type of transparency and we are not engaging in the independence that RTOs and ISOs are supposed to represent.

Mr. KENNEDY. Thank you. And only a minute left here, so a little bit quickly. But, Chairman Chatterjee, has the Commission considered reforms to RTO governance to ensure that the public interest is better represented in these organizations?

Mr. CHATTERJEE. Absolutely. Congressman, I agree with the concerns that you are raising and want to associate myself with the comments of my colleagues. I believe in consumer protections, in transparency. The one thing that I would caution is, as I mentioned in speaking with Congressman Flores, each of these different RTOs and ISOs is a completely different entity with different structures. And so, I am not certain a one-size-fits-all approach could work here.

What we currently do to address these matters is as—again, we can't speak to it, because it is on rehearing at NEPOOL—but when these matters come up, we take them up on a case-by-case basis. And I think we all have to be vigilant in ensuring that this transparency and consumer protection are in place. I just have to caution that a one-size-fits-all approach might not work.

Mr. KENNEDY. Understood. I will close with my last 2 seconds by commending my colleague, Jan Schakowsky, who has been a champion for consumers throughout her career. And she is introducing a Public Engagement at FERC Act which would ensure that FERC establishes the Office of Public Participation and Consumer Advocacy, which I think a few of you have mentioned already.

I am over time. I will recognize the gentleman from Michigan for 5 minutes.

Mr. WALBERG. I thank the chairman. We hang around long enough, we move up, don't we? But thanks to the——

Mr. KENNEDY. Give me 35 years, and we will get there. Thank you.

Mr. WALBERG. Thanks to the panel as well. You have hung around longer than any of us, I think, so I appreciate you being here.

Chairman Chatterjee—no, you have been here long enough. I am going to give you all a question and see if you can answer it. If anybody can tell me what was playing on the radio at the top of the charts at this point in 1978. Do you remember?

Mr. CHATTERJEE. Well, "Star Wars" was in theaters.

Mr. WALBERG. Talking about the charts.

Mr. CHATTERJEE. I know people were probably listening to it on their Walkman or record player.

Mr. WALBERG. Paul McCartney and the Wings, "With a Little Luck." And I remember that because I was hoping to graduate from graduate school about that time, with a little luck, and it did take place. Just using that a bit here, because with a little luck—and a little push—from both Congress as well as FERC, we could shake it up and bring our energy laws into the 21st century and lower costs for consumers. And that is, I think, at least for most of us up here, that is what it is about, with the quality.

Three years ago, FERC held a technical conference to discuss what needed to be done to modernize the rules implementing PURPA, a law passed in 1978, with a little luck. This issue is incredibly important in many areas of the country, especially mine, because customers are paying billions of dollars in, I believe, unnecessary costs right now for PURPA contracts. It started with a great idea, did what it was supposed to do, but it is time for some improvement.

FERC's current rules encourage the uneven, unplanned, and uneconomic development of QFs and provide subsidies that promote QFs at the expense of customers, of system reliability, and more competitive, cost-effective generation resources. For example, Consumers Energy in my district currently has over 2,000 megawatts worth of PURPA contracts for 20-year terms pending in the queue. These would lock in prices around $54 per megawatt hour compared to the 5-year average of $34 per megawatt hour that could be purchased from the MISO market. If Consumers is forced to buy all of this power at these above-market rates, it equates to Michigan customers paying more than $1½ billion over the life of the 20-year contracts, significant dollars.

I have introduced H.R. 1502, as you know, the PURPA Modernization Act, to help address these issues. But there are several issues that don't need to be addressed, I believe, through statutory change. The Commission could simply act and amend the rules, I believe. FERC's 1-mile rule, for instance, which developers game to force legally enforceable obligations onto utilities is written into FERC's regulations.

Mr. Chairman, yes or no, is this something that FERC could address on its own?

Mr. CHATTERJEE. Yes.

Mr. WALBERG. Often developers will split projects into smaller megawatt projects in order to come in under the 20-megawatt threshold for organized markets. FERC has already reinterpreted the threshold for noncompetitive entry into these markets from 80 megawatts to 20. In light of developers gaming this rule, could FERC lower this threshold on its own?

Mr. CHATTERJEE. Yes, we could.

Mr. WALBERG. That is good to know. Does it make sense to allow utilities to competitively bid renewables to set PURPA-avoided cost, and is there any help or guidance FERC could give to States to help come up with more accurate avoided cost calculations to better follow the spirit and the intent of PURPA?

Mr. CHATTERJEE. I don't want to get into any internal deliberations or conversations I am having with my colleagues, but it is something that we could do within our ranks.

Mr. WALBERG. So it is capable of doing that.

Mr. CHATTERJEE. Yes, sir.

Mr. WALBERG. It comes down to the willingness to do these things. Well, these are important. I mean, they are key components of my legislation, but relief is needed before I think Congress will be capable in its processes of acting on it. So I would truly encourage FERC to push as far as you can into bringing PURPA into the 21st century, into something that truly does do what it was intended to do and has done well, but now is doing well at an expense that is unnecessary, and so I appreciate that. To quote Paul McCartney and the Wings again, "There is no end to what we can do together." I won't sing it for you. But I look forward to working with you to modernize our current state of affairs. Thank you. I yield back.

Mr. SARBANES [presiding]. The gentleman yields back. I am going to yield myself 5 minutes for a few questions.

Commissioner Glick—and first of all, thank you all for staying as long as you did, and you saw from the earlier attendance here at the hearing there is a lot of interest.

Commissioner Glick, in your testimony you talk about how the environmental effects factor directly in the public interest standard at the Commission and is supposed to meet under the Natural Gas Act, and I certainly agree with that. There are public-interest and environmental-interest considerations under the Federal Power Act as well.

Unfortunately, my view is the Commission doesn't always give those interests the sufficient weight that they deserve in the decisionmaking that happens, and I am aware of several examples, actually, in the case of the relicensing of the Conowingo Dam. States have a very important role to play in the licensing of projects that FERC considers, but too often it seems that FERC is siding with project applicants at the expense of State concerns for broader public and environmental interests.

So could you just speak quickly to what you think the Commission can do to ensure that these broader public interests like climate change, environmental quality, and so forth get the appropriate consideration?

Mr. GLICK. Well, as you mentioned, we have a very broad public-interest standard in terms of our hydroelectric licensing responsibilities as well, so I think certainly on climate change, we certainly need to take that into account, the zero emissions qualities of hydropower, for instance.

But on those other environmental issues that you mentioned, it is my understanding, the way the process works, whether it be the State agencies pursuant to section 401 of the Clean Water Act or various, the resources agencies, the Fish and Wildlife Service, for instance, they actually have the ability and the authority to impose conditions on those licensing processes, and we have to include those conditions in our licenses.

Mr. SARBANES. Well, I hope those continue to get the attention, as I say, that is warranted in terms of making sure the process

lands in the right place. As you are aware, I am sure, Exelon Corporation applied for a new 50-year hydropower license to operate the Conowingo facility in August of 2012. After extensive discussions between the State and Exelon and several iterations of applications to the Maryland Department of the Environment, the State of Maryland issued a water quality certificate to Exelon in April of last year. Unfortunately, as you probably also know, the situation is still not resolved. Exelon has opposed the conditions that Maryland attached the water quality certificate. But early on in this project, FERC denied several study requests that Maryland made, denials that actually created delays and additional haggling between the State and Exelon.

The Federal Power Act requires applicants to submit "satisfactory evidence" to demonstrate that an applicant has complied with State laws. And my concern is that the administration's proposed policy changes on State oversight of water quality certification could weaken our efforts to achieve clean water in the Chesapeake Bay. How would you describe the appropriate role of State participation in FERC licensing in light of what I have just described?

Mr. GLICK. Well, I don't want to speak specifically about the Conowingo Dam, because that is a pending matter, I think, before the Commission. But I think we have the responsibility to actually defer to the States under section 401 of the Clean Water Act.

Mr. SARBANES. Well, thank you for that. I think overall the Commission could probably be doing more to cooperate with States, really view it as a collaborative effort and ensure that licensees provide sufficient information early in the licensing process to support State decisions and ensure projects are operated in compliance with State law. The Commission's mandate to give equal consideration—I will repeat that—equal consideration to natural resources and environmental quality should translate into greater support for ensuring that older hydropower projects are held to modern environmental standards. And I know that can be tricky, but it is really critical that that happen.

And so, let me just close by saying that the State of Maryland also has been working with neighboring States and the States within the Susquehanna River Basin to improve water quality conditions in the Chesapeake Bay. We really take that as our signature charge, in a sense, on the environmental front because we are aware the watershed meets the Bay, and we take that very seriously. All of the States continue to work on programs to reduce sediment and nutrient inputs into the watershed. The Conowingo facility has to be part of that solution as well.

And this relicensing provides that once-in-a-generation opportunity to get it right, to address the sediment issues associated with the dam and the facility's operation. So we have to address that issue, and if we don't address it, we are going to be putting the health in the entire Chesapeake Bay in jeopardy. It is impossible to overstate how critical this project is to the Bay. So as a member of the Maryland delegation, as somebody who takes that charge extremely seriously, I ask you to give that real consideration. I yield back the balance of my time.

The Chair recognizes Mr. Veasey from Texas.

Mr. VEASEY. Thank you, Mr. Chair. I want to thank you and the witnesses for appearing before the subcommittee today to discuss the critical role FERC has in ensuring our energy markets are operating fairly. I would like to discuss the Department of Energy coal and nuclear bailout proposal that would have resulted in higher energy bills for consumers. And in late 2017, the Trump administration revised a plan to force consumers to buy power from coal and nuclear plants on the decline, claiming that the costly and legally dubious plan was necessary due to fuel threats faced by our power grid.

While FERC unanimously opposed the plan, when asked yesterday in an event hosted by Edison Electric about providing incentives to failing plants, the Secretary suggested asking the question of FERC instead. And so, given the nature of today's hearing and the witnesses we have before us today, I would like to follow Secretary Perry's suggestion and ask you to respond to these questions.

Is providing incentives to failing coal and nuclear plants a priority for FERC at this time?

Mr. CHATTERJEE. Thank you for the question, Congressman. So as you mentioned, in the fall of 2017, Secretary Perry submitted a Notice of Proposed Rulemaking asking that certain plants, baseload plants, be compensated for having the attribute of having onsite fuel. At FERC we are a record-based, evidence-based agency, and we examined the record and we determined that we did not—the record did not support taking the action that Secretary Perry had suggested. In the process of voting down the Notice of Proposed Rulemaking from DOE, we opened a new docket to do a thorough examination of grid resilience, and now about 18 months later we have a far more robust understanding and record of what the potential challenges that may arise from the premature retirements of these baseload plants.

My colleagues and I need to sort through what, if any, actions need to be taken. I think, from my vantage point, the next step ought to be engagement with the RTOs and the ISOs and the States to see what they are seeing in terms of fuel security and what is working, what potential, you know, risks are on the horizon. But I will assure you, should the Commission take any action—and I am not saying it is certain we will take any action—should the Commission take any action, it would be fuel-neutral, technology-neutral based on the evidence in the record before us without any political influence.

Mr. VEASEY. I know also in an earlier interview, Secretary Perry was quoted as saying that the Department of Energy was pretty much done with the idea of providing funding for resilience as it awaits its input from stakeholders. And in January of last year, FERC initiated a new proceeding to examine the resilience of the bulk power system. Can you share any of your findings pursuant to this proceeding?

Mr. CHATTERJEE. So that is the proceeding that I was referring to, sir. All I will say is Secretary Perry raised a very serious question. And I do think over the past year and a half, the concept of resilience and this question about what the energy transition means for the security and stability of the grid is one that we are

having in energy circles. And I think that is productive, and I think that we will continue to engage in this kind of productive dialogue.

But at this time, I am not going to speak to any potential actions the Commission may or may not take, because my colleagues and I need to still further determine what the next steps should be in reviewing the record that is before us in this new proceeding.

Mr. VEASEY. When do you estimate there will be further reviews or actions?

Mr. CHATTERJEE. So, again, I think I myself and my team have worked our way through the record. I have come to the conclusion that I would like to see some further engagement with the RTOs and the ISOs in the States, but I need to—I don't want to get ahead of my colleagues or Commission staff. I need to confer with my colleagues to see if they agree if further examination in this area is necessary.

Mr. VEASEY. Thank you. I yield back.

Mr. SARBANES. The gentleman yields back. I don't think we have any additional Members, so that concludes our panel. I want to thank you all.

I request unanimous consent to enter the following items into the record: a letter from associations representing commercial, industrial, and residential ratepayers and public interest groups; a letter from the 198 Methods; a letter from the National Rural Electric Cooperative Association.

And again, let me thank our witnesses. I know you have been here for quite a while. We thank you for participating in today's hearing.

I want to remind Members that, pursuant to committee rules, they have 10 business days to submit additional questions for the record to be answered by the witnesses who have appeared. And I ask each witness to respond promptly to any such questions that you may receive. We appreciate that.

At this time, the subcommittee is adjourned.

[Whereupon, at 1:34 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

June 12, 2019

The Honorable Bobby Rush
Chairman, Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Fred Upton
Ranking Member, Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Frank Pallone
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Greg Walden
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Rush, Ranking Member Upton, Chairman Pallone, and Ranking Member Walden:

Please find attached a letter we have transmitted to the Federal Energy Regulatory Commission (FERC) concerning the interests of electricity customers in competitive wholesale electricity markets.

We look forward to working with you on these critical issues.

Sincerely,

American Chemistry Council
American Forest and Paper Association
Business and Institutional Furniture Manufacturers Association
Electricity Consumers Resource Council
Heritage Action for America
National Association of State Utility Consumer Advocates
National Retail Federation
Portland Cement Association
Public Citizen
R Street Institute
Retail Industry Leaders Association
Small Business Entrepreneurship Council
TechNet

June 12, 2019

Chairman Neil Chatterjee
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Commissioner Cheryl A. LaFleur
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Commissioner Richard Glick
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Commissioner Bernard L. McNamee
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Dear Chairman Chatterjee, Commissioner LaFleur, Commissioner Glick, and Commissioner McNamee:

As associations representing the commercial and industrial sectors, as well as, residential ratepayers and public interest groups, we are writing to urge the Federal Energy Regulatory Commission (FERC) to continue its leadership role in encouraging the evolution of competitive wholesale electricity markets and to consider several critical issues as part of your agenda and activities going forward.

Two decades ago, consistent with the principles and requirements of the Federal Power Act, FERC encouraged the formation of regional transmission organizations (RTOs) and independent system operators (ISOs), with the goals of promoting economic efficiency, reliability, and non-discriminatory access to the transmission grid.

Since that time, multiple studies have found that competitive wholesale electricity markets can deliver significant benefits to electricity customers, including greater efficiency, lower electricity prices, and robust reliability. Competitive wholesale electricity markets can also encourage investment in innovations that are transforming the grid and delivering significant value to customers, such as clean energy generation as well as energy storage, distributed energy resources, and demand response technologies.

However, as you are quite aware, RTO and ISO decision-making processes do not always adequately consider the voices of customers, innovators, and other new entrants to wholesale electricity markets. The processes often favor incumbents, which have resulted in problems with transparency, accountability, and market performance. Customers are also concerned about growing tensions among states, market operators, and Federal policymakers related to the evolution and operation of wholesale electricity markets. In some regions, state preferences and mandates for energy generation do not always align with market outcomes. In some markets, choices in market design create unintended barriers to adoption of emerging technologies.

These issues are complex, and solutions will necessarily involve rigorous analysis and diverse stakeholder input. As FERC continues its mission and mandate to ensure open access, reliability, and just and reasonable electricity rates, we urge you to consider the following:

- FERC should ensure that RTOs and ISOs adhere to key principles necessary for the efficient and effective operation of wholesale electricity markets, namely: transparency in

decision-making, independence from undue influence, and fair representation of all stakeholders consistent with Order No. 719.

- FERC should continue to fulfill its role in providing strong oversight to ensure RTO and ISO accountability not only to these principles in concept, but also in practice. RTO and ISO decision-making processes—and which stakeholders are empowered to shape them—will impact the success of each and every priority of the Commission, including resiliency, cybersecurity, and the transition to a modern grid.

- FERC should ensure wholesale electricity markets continue to enable access to advanced technologies, which benefit consumers by lowering costs and improving service quality. Innovation in generation, transmission, communications technologies, and consumer-centric business models are already creating value for electricity customers and the grid as a whole. FERC should be a leader in this transformation.

- FERC should ensure the independence and effectiveness of the RTO and ISO Independent Market Monitors (IMMs) and the IMMs' right to file complaints regarding market deficiencies.

- FERC should consider mechanisms for ensuring *all* U.S. electricity customers can realize the benefits of wholesale market competition.

More than ever before, competitive wholesale electricity markets are poised to unleash the cost-effective, clean, reliable, and resilient solutions that electricity customers demand and deserve. With FERC's continued leadership and oversight, we can accelerate the transition to a modern grid while empowering consumers and protecting the public good.

We look forward to continuing a dialogue with you on these critical issues.

Sincerely,

American Chemistry Council
American Forest and Paper Association
Business and Institutional Furniture Manufacturers Association
Electricity Consumers Resource Council
Heritage Action for America
National Association of State Utility Consumer Advocates
National Retail Federation
Portland Cement Association
Public Citizen
R Street Institute
Retail Industry Leaders Association
Small Business Entrepreneurship Council
TechNet

198methods.org

To: House Energy and Commerce Committee, Subcommittee on Energy
CC: Chairman Bobby L. Rush, Ranking Member Fred Upton

RE: June 12 Hearing on "Oversight of FERC: Ensuring Its Actions Benefit Consumers and the Environment".

Thank you for scheduling today's hearing on the Federal Energy Regulatory Commission (FERC). This is, to my knowledge, the first Congressional hearing on FERC in years, though advocates and impacted citizens have been crying out for justice, congressional investigations and a dramatic restructuring of FERC for years.

We appreciate you taking time to hold this hearing, and to focus on the climate impacts of FERC's policies. We also hope that this will not be the last hearing on FERC this subcommittee or the Energy and Commerce Committee hold: the coalition of pipeline fighters, climate justice advocates, farmers and impacted citizens we work with would appreciate the opportunity to tell you their side of the story as well. And I think you will not be surprised that people whose lives, businesses and health have been ruined by FERC have a very different and less bloodless story to tell about the impacts of issues like "climate impact analysis" "grid resilience" and "energy storage and capacity."

FERC is a rubber stamp agency that has rejected only two applications out of more than 400 proposed natural gas pipelines/infrastructure projects in the last 30 years. As I mentioned, protests at FERC and their approved projects have become increasingly common – I myself recently climbed two stories up a ladder to drop a banner from FERC's awning this spring to demand Congress change FERC into FREC, the Federal Renewable Energy Commission, as part of a Green New Deal.

Why are we demanding changes and accountability from FERC? Fracking contaminates water, poisons the air and land, leads to earthquakes and leaks methane, which is up to 80 times more damaging to our climate than carbon dioxide. This pollution is a direct result of the permits FERC issues, and you will hear testimony today from Commissioners who agree that FERC is not doing enough to consider the upstream and downstream impact of the projects they review.

I will direct you to two recent reports that underline the seriousness of this issue, and the need for immediate Congressional intervention:

First, the new report Fracking Endgame from Food and Water Watchfinds[1] that more than 700 new natural gas power plants, petrochemical plants & LNG export terminals have been proposed, planned or built to capitalize on skyrocketing fracked gas production. With just 12 years left to transition to 100 percent clean, renewable energy, we need to keep fossil fuels in the ground and build a just transition as fast as we can. But if the frackers get their way, it's game over for a stable climate. It's them or us.

Second, the new report "Burning the Gas 'Bridge Fuel' Myth: Why Gas Is Not Clean, Cheap, or Necessary" from Oil Change International provides five clear reasons gas is not a bridge fuel to a safe climate:[2]

1. Gas breaks the carbon budget;
2. Coal-to-gas switching doesn't cut it;
3. Low-cost renewables can displace coal & gas;
4. Gas isn't essential for grid reliability;
5. New gas infrastructure locks in emissions.

But despite the mounting evidence that Gas is a climate disaster, the Trump Administration's has been issuing Executive Orders and EPA guidance that make it clear they intend to override state objections to new fossil fuel infrastructure.[3]

Some FERC commissioners, especially Richard Glick, have been raising objections.[4] But this has not stopped approvals from being issued - primarily because Commissioner LaFleur has failed to live up to her professed concern for the climate and voted to approve projects even as she raises objections.

And the issue has become sharly more partisan and political in the last few weeks: After FERC approved another gas export terminal in the Gulf of Mexico, Rick Perry and the Department of Energy put out a statement praising fracked gas as "molecules of Freedom."[5] While that was so stupid it's hilarious, it wasn't satire. This is the actual policy of the United States Department of

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1 https://www.foodandwaterwatch.org/news/fracking-endgame-its-literally-us-or-frackers?ms=faws_np_06042019_literally-us-or-frackers

2 http://priceofoil.org/2019/05/30/gas-is-not-a-bridge-fuel/

3 https://www.commondreams.org/news/2019/06/07/following-trumps-executive-order-epa-moves-limit-states-ability-block-dirty-energy

4 https://www.vox.com/energy-and-environment/2019/5/22/18631994/climate-change-renewable-energy-ferc

5 https://www.theguardian.com/business/2019/may/29/energy-department-molecules-freedom-fossil-fuel-rebranding

Energy. And the very next day Acting FERC Chair Neal Chatterjee tweeted his support and made a statement to the press about how he has always supported gas exports at any cost.[6]

You could chalk it all up to another corrupt Trump nominee, but with FERC overseeing dozens of applications for new gas pipelines and export terminals, Chairman Chatterjee's comments are not just impolitic, they represent a direct erosion of FERC's independance and decision make capacity. If an idea as dumb as "freedom gas" is driving decisionmaking at FERC, what hope does our climate and collective future have? How can a man who swears fealty to the most base and self-dealing parts of the Trump administration serve faithfully as chair of an independent commission with so much power over our collective energy future?

We should be clear what expanded fracking and export of fracked gas means: increasing gas exports means increased fracking and pipelines, which means more cancer, more earthquakes, more explosions, more eminent domain seizures enforced by armed federal officers. It means people die, and get hurt, and treaties get violated, and women disappear or are murdered. That's what it means, that's the consequence of this.

I am also enclosing more than 3,000 messages and comments for you gathered in just the last 24 hours. We ask you to ask Commissioners hard questions about those two new reports. You can find all 3,076 names, and read their comments and questions for FERC at: http://bit.ly/FERCmessages6_12_19

Here is the message we have all signed on to:

> *To: Energy Subcommittee, House Energy and Commerce Committee*
>
> *Thank you for scheduling today's hearing on the Federal Energy Regulatory Commission (FERC).*
>
> *FERC is a rubber stamp agency that has rejected only two applications out of more than 400 proposed natural gas pipelines/infrastructure projects in the last 30 years. Fracking contaminates water, poisons the air and land, leads to earthquakes and leaks methane, which accelerates dangerous climate change.*
>
> *Now is the moment for Congress to act: According to new research, more than 700 new natural gas power plants, petrochemical plants & LNG export terminals have been proposed, planned or built to capitalize on skyrocketing fracked gas production.*
>
> *Another recent report provides five clear reasons gas is not a bridge fuel to a safe climate:*

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6 https://www.utilitydive.com/news/chatterjee-rejects-criticism-of-violating-fercs-neutrality-with-use-of-fr/556057/

198methods.org

1 *Gas breaks the carbon budget*
2 *Coal-to-gas switching doesn't cut it*
3 *Low-cost renewables can displace coal & gas*
4 *Gas isn't essential for grid reliability*
5 *New gas infrastructure locks in emissions*

The Trump Administration's recent Executive Orders and EPA guidance make it clear they intend to override state objections to new fossil fuel infrastructure - making this an even more urgent situation that requires Congressional oversight.

Please ask FERC's commissioners about these new reports, their record of approving climate-wrecking gas projects, and demand accountability for the American people.

Thank you for your consideration,

[redacted]

Andrew Hudson,
Founder, 198 methods

June 10, 2019

The Honorable Bobby Rush
Subcommittee on Energy
House Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, D.C. 20515

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

Dear Chairman Rush and Ranking Member Upton:

I am writing on behalf of America's consumer-owned, not-for-profit electric cooperatives 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) located on local utility distribution systems are aggregated for purposes of participating in wholesale electricity markets. I am concerned that the Commission may adopt rules on third-party aggregation of DERs that would further expand Commission regulation under the Federal Power Act into areas that the Act leaves to states and localities. I 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 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 National Rural Electric Cooperative Association (NRECA) believes that the "relevant electric retail regulatory authority"—which may be the state public utility commission or the local governing board of a consumer-owned cooperative—is best positioned to decide whether to authorize third-party aggregators to transact with retail consumers. A Commission order that expressly reserves 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.

I am concerned that the Commission may not allow for local decision-making on these questions. In February 2018, the Commission issued Order No. 841, which requires ISOs and RTOs to amend their wholesale market rules to better enable participation by electric storage resources, including storage located on a local utility distribution system or behind the retail customer meter. Yet Order No. 841 does not adopt the language that the Commission previously used when it provided for aggregations of retail customers to participate in RTO and ISO wholesale markets as demand response resources. That language (in Commission Order Nos. 719 and 719-A) expressly allows the relevant electric retail regulatory authority to decide whether to allow demand-response aggregators to participate in wholesale markets.

In May 2019, the Commission issued Order No. 841-A, which explicitly denies requests by NRECA and other parties that the Commission include such language in its electric storage rule. In response, the Commission wrote that it was not required to follow the precedent of Order Nos. 719 and 719-A, and that it would not do so as a matter of policy—ostensibly because only a few states have already adopted programs governing electric storage resources. Rather than leave room for local

decision-making on the best ways to use electric storage for the benefit of consumers and local communities, the Commission declared that under Order No. 841, "states cannot directly prohibit electric storage resources from participating in the wholesale market" and the owner of a storage resource "has a choice between participating in the retail market or wholesale market" and "states may not take away that choice by broadly prohibiting all retail customers from participating in RTO/ISO markets."

The Commission has established a separate proceeding (Docket No. RM18-9-000) to consider similar proposed rule changes to requiring RTOs and ISOs to enable third-party aggregators to bid DER aggregations into wholesale markets. The Commission held a technical conference on April 10–11, 2018, and received supplemental written comments to gather more information before taking final action on this proposal. As amply explained by witnesses at that technical conference and in the written comments, 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 states and communities, it may make sense to move forward addressing these questions and making the needed investments; in others, it may not, at least not yet. The key point is to allow local policymakers, not the Commission, to make these critical decisions.

For this reason, NRECA is urging the Commission to follow the wise precedent it laid for demand-response aggregations, and not for electric storage resources, in fashioning its final rule for DER aggregations. 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,

Jim Matheson
CEO
National Rural Electric Cooperative Association

cc: Greg Walden
Frank Pallone, Jr.

Subcommittee on Energy
Hearing on
"Oversight of FERC: Ensuring Its Actions Benefit Consumers and the Environment"
June 12, 2019

Responses of the Honorable Neil Chatterjee
Chairman
Federal Energy Regulatory Commission

The Honorable Paul D. Tonko (D-NY)

1. Thank you for your response to my question on the ongoing distributed energy resource (DER) rulemaking. I appreciate your commitment to working towards finalizing this important rule. When I asked about the status of the DER rulemaking, you indicated that you have ample record and were working through complex legal questions.

    a. Can you please clarify whether you need additional record to issue the final DER rule or is the current standing record sufficient?

    RESPONSE: At the June hearing, I mentioned that the Commission is working its way through some complex questions regarding the DER rulemaking. As you correctly note, there is an extensive record in this proceeding that the Commission is currently considering in determining how best to address these issues. To the extent that the Commission determines, based on our review of the current record, that additional information is needed, we will take action to obtain the needed information so that we can move forward with this important rulemaking.

2. While distributed energy resources and storage are playing a growing role in our electricity system, transmission remains the backbone of our electricity infrastructure. As more utility-scale renewables are developed far from centers of demand, this infrastructure will become even more necessary. But we know these projects are incredibly difficult to plan, site, permit, and build.

    a. What in your opinion can FERC do to provide greater incentives to increase the utilization of existing transmission infrastructure through the deployment of advanced technologies and/or adoption of practices to maximize capacity and efficiency?

    RESPONSE: This is a topic that I am very interested in and that the Commission recently has taken several steps to address. On March 21, 2019, the Commission issued a Notice of Inquiry regarding the Commission's electric transmission incentives policy (Docket No. PL19-3-000). The Notice of Inquiry included questions regarding both advanced technologies and how to enhance the capacity, efficiency, and operation of the transmission grid. The Commission received

comments regarding the Notice of Inquiry and is carefully evaluating how to proceed. In addition, the Commission recently announced that we will hold a staff-led technical conference to explore what transmission line rating and related practices might constitute best practices, and what, if any, Commission action in these areas might be appropriate (Docket No. AD19-15-000). I look forward to considering these issues with my colleagues.

b. What are your recommendations for Congress to promote deployment of advanced transmission technologies on existing infrastructure?

RESPONSE: I do not have recommendations for Congress on this issue at this time.

3. We also know that the interregional planning process for new transmission infrastructure has not proven to be effective.

a. What in your opinion can FERC do to improve the interregional transmission planning process?

RESPONSE: In the Notice of Inquiry on electric transmission incentives policy mentioned above, the Commission asked for comments on whether, and if so how, the Commission should use incentives to encourage the development of interregional transmission projects. The comments received in this proceeding will help inform our consideration of potential next steps on this issue.

b. What are your recommendations for Congress to promote a more effective interregional planning process?

RESPONSE: I do not have recommendations for Congress on this issue at this time.

c. What safeguards should be considered to ensure there is transparency, efficiency, and fairness in that process?

RESPONSE: The Commission has established transmission planning principles for both local transmission planning (Order No. 890) and regional transmission planning (Order No. 1000). These principles, which promote transparency, efficiency, and fairness, provide a foundation for the interregional transmission coordination processes pursuant to Order No. 1000. I will keep these interests in mind as we explore whether and how the Commission could do more to encourage the development of more efficient and cost-effective interregional transmission facilities.

4. There are many regions of the nation with high-potential for clean energy deployment and growing interconnection queues. It is my understanding that Texas has successfully

aligned incentives to encourage transmission construction to connect those areas with demand centers.

a. What in your opinion can FERC do outside of ERCOT to ensure right-sized transmission capacity is developed to meet high-potential clean energy regions?

RESPONSE: The Commission has taken significant steps, such as the reforms adopted in Order No. 1000, to promote the development of more efficient or cost-effective transmission facilities in order to meet the nation's energy needs. More recently, the Commission issued Order No. 845, which updated our regulations on electric interconnections. In addition, the Commission has acted on recent proposals from several public utilities to address concerns about their processing of interconnection requests. I appreciate the importance of this issue, and I will continue to look for opportunities to improve the Commission's transmission development and interconnection policies.

b. What are your recommendations for Congress to promote efficient development of resources in these regions?

RESPONSE: I do not have recommendations for Congress on this issue at this time.

The Honorables Joseph P. Kennedy III (D-MA) and Frank Pallone, Jr. (D-NJ)

1. While the rules greatly differ within each Regional Transmission Organization (RTO), there are significant concerns that the current rules and structures of capacity markets are making it increasingly difficult for new participants to enter the market and instead favor incumbent generators and existing participants.

a. Has the Commission considered why some RTOs open their membership up to more diverse consumer technology interests as opposed to others?

RESPONSE: Integrating new technologies can be complex, as they do not always fit easily into market constructs designed for traditional generation resources. However, the Commission has made strides in recent years to level the playing field for all resources to participate in markets administered by RTOs and Independent System Operators (ISOs). The Commission's recent final rule with regard to electric storage (Order No. 841) is an important example of the Commission taking steps to remove barriers to market participation by new technologies. As mentioned above, the Commission is also considering a notice of proposed rulemaking regarding the participation of DER aggregations in the wholesale electricity markets.

b. What can the Commission do, and what is the Commission considering, to address the limitations hampering new entrants from entering and participating in capacity markets?

RESPONSE: Please see my response to the previous question.

2. Chairman Chatterjee, can you provide the Committee with information on the makeup of the boards of the ISOs and RTOs under your jurisdiction? More specifically, the board members' affiliation or relationships, sector by sector, including consumer, transmission owner, generation owner, marketer, public interest, environmental, academic, and others.

RESPONSE: Although the Commission does not select or approve individual RTO or ISO board members, the Commission has long stressed the importance of structuring RTO and ISO governance to ensure that decision-making is independent of the control of any market participant or class of market participants.

RTO/ISO boards reflect a broad range of backgrounds and interests, including transmission, generation, environmental, energy technology, public interest, financial, academia, and other interests. More information on the RTO and ISO boards is available on their public websites.[1]

In addition, the MISO and PJM boards have specific experience criteria to ensure that a certain number of directors have expertise in corporate leadership, the operation and planning of electric transmission systems, and experience in commercial markets and trading and associated risk management. Similarly, NYISO requires that its board members possess a cross-section of skills and experience (e.g., Commission electric regulatory affairs, electric utility management, corporate finance, bulk power systems, human resources administration, power pool operations, public policy, consumer advocacy, environmental affairs, business management, law, and information systems), and that at least three directors have prior relevant experience in the electric industry.

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[1] *See* ISO New England, Inc., *Board of Directors* (Aug. 2019), https://www.iso-ne.com/about/corporate-governance/board/; NYISO, *Board of Directors* (Aug. 2019), https://www.nyiso.com/who-we-are; CAISO, *Board of Governors* (Aug. 2019), http://www.caiso.com/informed/Pages/BoardCommittees/Default.aspx; PJM, *Board of Managers* (Aug. 2019), https://www.pjm.com/about-pjm/who-we-are/pjm-board.aspx; MISO, *Board of Directors* (Aug. 2019), https://www.misoenergy.org/about/board-of-directors-and-leadership/operational-leadership/; SPP, *Board of Directors* (Aug. 2019), https://www.spp.org/organizational-groups/board-of-directorsmembers-committee/.

The Honorable Marc Veasey (D-TX)

1. Standard license Article 5 of the conditions that the Commission includes in licenses for major hydroelectric projects affecting navigable waters of the United States requires licensees to acquire and retain sufficient land or rights to use lands needed to construct, maintain, and operate their projects. In the past, the Commission has taken the position that if project operations require the acquisition of additional lands or use rights, the project's boundaries may be amended to include lands previously outside of the project boundaries. E.g., *PacifiCorp*, 105 FERC ¶ 61,237, at P 114 (2003).

    a. Do you believe that the Commission's hydroelectric licensing jurisdiction should be limited to a project's original boundary or should the Commission retain its current authority to require a licensee to acquire sufficient land or rights to use lands to operate the project, even if those lands lie outside a project's historic boundary?

    RESPONSE: The Commission's experience has been that conditions in a project area can change significantly over the course of a 30-50 year license, so that the original project boundary may not account for all circumstances and may need to be revised. For example, communities in a project area may grow so that there is a need for new recreational amenities that were not contemplated when the license was issued, or the project may have unexpected environmental effects that extend beyond the original project boundary. Accordingly, while the Commission does not change project boundaries absent a public interest justification, Congress has given it the authority to do so when the public interest so requires.

    b. Do you believe this rule should be different for the Pensacola Hydroelectric Project, FERC No. 1494, than for other hydroelectric projects licensed by the Commission? If so, why?

    RESPONSE: The Commission applies its rules in a consistent manner, but the facts of each case may result in a different outcome from case to case.

2. According to the Compliance Handbook published by the Commission's Division of Hydropower Administration and Compliance, many licenses "contain conditions that require specific reservoir water levels to be continuously maintained or maintained during specified periods of time … or target elevations within required reservoir operating bands. The purpose of these water-level requirements is to protect and enhance the recreational, scenic, and environmental resource values of a project. Non-compliance with the water-level requirements of a project reservoir could adversely affect the project's environmental integrity and quality."

    a. Do you believe that the Commission needs the authority to prescribe reservoir water levels in its hydroelectric licenses in order to fulfill its statutory responsibilities under the Federal Power Act?

RESPONSE: As authorized by Congress and where required by the public interest, the Commission prescribes water levels and target elevations, where necessary. The Commission does not set these levels for all reservoirs subject to its jurisdiction. It determines whether such requirements are necessary on a case-by-case basis for environmental or safety reasons.

The Honorable David B. McKinley (R-WV)

1. The reliability and resilience of the bulk electric system requires support from generation and transmission assets. Consumers rely on these systems—as well as their local electric utility—for their safety, health, productivity, and comfort. Given the changing nature of generation supply, how important are transmission assets to future system reliability and resilience?

   RESPONSE: Transmission assets are essential to the reliability and resilience of the bulk electric system. As we continue to address the challenges and opportunities of the evolving bulk electric system, transmission investment, planning, and operations will remain vital to ensuring system reliability and resilience.

   a. Is it fair to say investing in a robust transmission system is critical to support existing and new power generation regardless of fuel type?

      RESPONSE: Yes.

2. I understand FERC is taking a look at incentives and returns provided to transmission owners. You noted that the decisions that FERC makes on this topic will have "impacts for decades to come." This causes me concern as, if FERC's decision is wrong, there could be negative impacts to the American public. Given the changing nature of generation projects and the critical role that transmission plays in the bulk power system, wouldn't you agree that incentivizing transmission is critical to the economic health of our Nation?

   RESPONSE: Yes, incentivizing needed transmission is critical to the economic health of our nation.

   a. If FERC sets the incentives and returns too low, investment in the transmission system will diminish. What assurances can you give me and the American public that incentives and returns will be substantial enough to prevent this occurring?

      RESPONSE: As you note, the Commission has multiple open proceedings in which we are considering issues related to electric transmission rates and incentivizing transmission. The Commission is carefully considering these

important issues, recognizing the need to incentivize needed transmission in a way that ensures that electric transmission rates remain just and reasonable.

3. I've heard the U.S. transmission grid described as one of the most sophisticated machines on Earth. Collectively, utilities across the country have thousands of engineers working on it literally every hour to maintain the reliability we expect.

    a. How do you and the RTOs set the standards for the transmission utility performance?

    RESPONSE: Under section 215 of the Federal Power Act, the North American Electric Reliability Corporation (NERC) develops Reliability Standards and submits them to the Commission for review. The Commission also may direct NERC to develop a Reliability Standard. An RTO may participate in the NERC process to develop a Reliability Standard and in the Commission proceeding to review the Reliability Standard.

    b. Are the utilities that own transmission the lone party on the hook if something goes wrong on their systems?

    RESPONSE: The Reliability Standards apply to a number of functional entities, such as transmission owners and operators, generation owners and operators, and others that use, own or operate the bulk power system. If NERC or the Commission determines that a violation of a Reliability Standard occurred, then the entity that violated the Reliability Standard could be subject to penalty.

4. EPA last week issued guidance to clarify the requirements of Clean Water Act section 401, which has been used to thwart FERC-approved interstate natural gas pipelines.

    a. Do you think that EPA's guidance will assist FERC and other federal agencies in thwarting attempts to abuse the authority granted by section 401?

    RESPONSE: EPA's guidance can assist the Commission by improving the predictability and timeliness of the state certification process by clarifying timeframes for certification, the scope of certification review and conditions, and related certification requirements and procedures. EPA's determination that the statutory timeline for certification review starts upon the certifying authority's receipt of a certification request, rather than receipt of a complete application as determined by the certifying authority, is consistent with Commission regulations and precedent.

The Honorable Billy Long (R-MO)

1. The last time the FERC Commissioners testified before this subcommittee, I asked Chairman McIntyre why City Utilities, a public utility owned by the City of Springfield, Missouri, is paying the highest energy cost in the Southwest Power Pool. I also asked why City Utilities is paying for transmission upgrades where the costs greatly exceed the benefits received, as shown by Southwest Power Pool's own study. The study shows that City Utility's benefit ratio is around .5, lower than the threshold of .8 needed to meet the Federal Power Act's Just and Reasonable Standard. At the same time, Chairman McIntyre expressed surprise that one entity would be paying substantially more for transmission service than others and promised to look into it.

    a. Are you or any of the other commissioners aware whether a wide discrepancy in benefits to customers remains within SPP?

    RESPONSE: On August 12, 2019, the Commission issued an order denying the City Utilities of Springfield, Missouri's complaint against SPP regarding how SPP is applying its Highway/Byway transmission cost allocation methodology. The time period for requesting rehearing of the Commission order is still open, and therefore I cannot discuss the merits of this proceeding.

2. On May 10th of last year at a hearing entitled "Examining the State of ELECTRIC Transmission Infrastructure: Investment, Planning, Construction, and Alternatives," John Twitty testified on behalf of the TAPS Group about the benefits of joint transmission ownership arrangements as an effective means of getting needed transmission facilities built. For more than a decade, FERC has reportedly expressed strong support for such arrangements, however your support has not spurred additional joint ownership arrangements. The Commission has recently initiated a notice of inquiry regarding its transmission incentives policies.

    a. Should the Commission do more to actively promote joint ownership arrangements involving public power entities?

    RESPONSE: On March 21, 2019, the Commission issued a Notice of Inquiry regarding the Commission's electric transmission incentives policy (Docket No. PL19-3-000). As part of the Notice of Inquiry, the Commission asked commenters to respond to questions on joint ownership arrangements involving public power entities.

The Honorable Jeff Duncan (R-SC)

1. FERC held a technical conference on the Public Utilities Regulatory Policy Act, or PURPA, during the first quarter of 2016. Now I recognize FERC has faced many challenges during that time, including losing quorum for several months. The record

developed just over three years ago is robust—including evidence that PURPA results in consumers paying more for inefficient investments.

a. Why is FERC continuing to delay action that will increase competition and benefit industrial, commercial, and residential U.S. electricity consumers?

RESPONSE: As I have made clear many times, including at the June hearing, I strongly believe it is time to bring PURPA into the 21st century. Although review of the Commission's PURPA regulations is a complex effort, it remains a high priority for me. I am committed to continue working with my colleagues to modernize the Commission's PURPA regulations.

Subcommittee on Energy
Hearing on
"Oversight of FERC: Ensuring Its Actions Benefit Consumers and the Environment"
June 12, 2019

The Honorable Cheryl A. LaFleur
Commissioner
Federal Energy Regulatory Commission

The Honorable Paul D. Tonko (D-NY)

1. While distributed energy resources and storage are playing a growing role in our electricity system, transmission remains the backbone of our electricity infrastructure. As more utility-scale renewables are developed far from centers of demand, this infrastructure will become even more necessary. However, we know these projects are incredibly difficult to plan, site, permit, and build.

    a. What in your opinion can FERC do to provide greater incentives to increase the utilization of existing transmission infrastructure through the deployment of advanced technologies and/or adoption of practices to maximize capacity and efficiency?

    RESPONSE: As relevant here, the Commission regulates the rates, terms and conditions of interstate electric transmission by public utilities and establishes requirements for transmission planning and cost allocation. Within our existing regulations for transmission planning and cost allocation, the Commission requires the consideration of both transmission and non-transmission alternatives, which often include advanced technologies. Also, as mentioned by the Chairman, in March of this year the Commission issued a Notice of Inquiry regarding our electric transmission incentives policy (Docket No. PL19-3-000). Among other things, the Notice of Inquiry raises questions regarding the consideration of advanced technologies under our incentives policy. In addition, the Commission will hold a technical conference in September to discuss the benefits and challenges of dynamic line ratings and ambient-adjusted line ratings (AD19-15-000).

    b. What are your recommendations for Congress to promote deployment of advanced transmission technologies on existing infrastructure?

    RESPONSE: I believe the language of section 219 of the Federal Power Act gives the Commission the authority to support the deployment of advanced

technologies. However, I also believe that any further expression of Congressional intent through directive legislation is always useful.

2. We also know that the interregional planning process for new transmission infrastructure has not proven to be effective.

   a. What in your opinion can FERC do to improve the interregional transmission planning process?

      RESPONSE: The Commission has reviewed several aspects of Order No. 1000 over the past few years, such as our June 2016 technical conference on transmission development and our transmission metrics reports. While we have unfortunately seen limited development of long-line interregional transmission, we have seen a growth in lower voltage projects to address congestion at the seams between regional borders. At the seams we have seen transmission planning regions plan and develop lower voltage, cost effective projects that offer a significant benefit to both regions. I believe FERC should continue to encourage innovative planning to address congestion at the seams of transmission planning regions, as well as larger interregional projects to deliver location-constrained renewables to meet public policy requirements within the meaning of Order No. 1000.

   b. What are your recommendations for Congress to promote a more effective interregional planning process?

      RESPONSE: Under section 216 of the Federal Power Act, Congress directed the Department of Energy to designate national interest electric transmission corridors, which would provide the Commission the backstop siting authority needed to aid in the development of interregional transmission. Due to court rulings limiting its effectiveness, I believe this provision has not achieved its intended result. I believe that Congress should consider additional legislation more clearly giving FERC backstop siting authority, which would help facilitate the development of transmission needed to deliver location-constrained renewables to population centers.

   c. What safeguards should be considered to ensure there is transparency, efficiency, and fairness in that process?

      RESPONSE: The Commission has established transmission planning principles for both local transmission planning (Order No. 890) and regional transmission planning (Order No. 1000). These principles, which promote transparency, efficiency, and fairness, provide a foundation for the interregional transmission coordination processes pursuant to Order No. 1000. These safeguards are important to the development of the transmission backbone needed to effectively integrate distributed resources.

3. There are many regions of the nation with high-potential for clean energy deployment and growing interconnection queues. It is my understanding that Texas has successfully aligned incentives to encourage transmission construction to connect those areas with demand centers.

    a. What in your opinion can FERC do outside of ERCOT to ensure right-sized transmission capacity is developed to meet high-potential clean energy regions?

    RESPONSE: Unlike in ERCOT, there is a split of authority between states who cite transmission projects and the federal government who regulates the transmission planning process. As discussed above, FERC should use its ratemaking authority (under our ratemaking and incentives policies) and planning (under Order No. 1000) to support the development of high voltage transmission. As I mentioned previously, I believe backstop siting authority would facilitate development of high voltage transmission to deploy clean energy. I also believe that the appropriate federal agencies should support the development of high voltage transmission on federal land.

    b. What are your recommendations for Congress to promote efficient development of resources in these regions?

    RESPONSE: I continue to believe revisiting section 216 of the Federal Power Act to allow for backstop siting authority could help promote efficient development of resources in these regions

The Honorable Joseph P. Kennedy III (D-MA)

1. Congress established the Office of Public Participation under the Public Utility Regulatory Policy Act (PURPA) of 1978. The office was designed to assist the public and consumer advocates by intervening in FERC proceedings. However, to date, the office has never formally been established by FERC nor directly funded by Congress.

    a. Commissioner LaFleur, do you support the establishment of an Office of Public Participation at FERC?

    RESPONSE: Yes.

    b. Would such an office prove to be a valuable resource for consumers and public advocates seeking meaningful participation in FERC proceedings?

    RESPONSE: My understanding is that in the early years after passing PURPA, FERC requested money to fund the Office of Public Participation, but this request was denied. I believe Congress should allocate money for this office, and I think

it could be designed and carried out so as to be a valuable resource for stakeholders and the public.

The Honorable Marc Veasey (D-TX)

1. Standard license Article 5 of the conditions that the Commission includes in licenses for major hydroelectric projects affecting navigable waters of the United States requires licensees to acquire and retain sufficient land or rights to use lands needed to construct, maintain, and operate their projects. In the past, the Commission has taken the position that if project operations require the acquisition of additional lands or use rights, the project's boundaries may be amended to include lands previously outside of the project boundaries. E.g., PacifiCorp, 105 FERC P61, 237 at ¶114 (2003).

    a. Do you believe that the Commission's hydroelectric licensing jurisdiction should be limited to a project's original boundary or should the Commission retain its current authority to require a licensee to acquire sufficient land or rights to use lands to operate the project, even if those lands lie outside a project's historic boundary?

    RESPONSE: The Commission should retain its current authority, given to it by Congress, to require a licensee to acquire additional land or rights if it is in the public interest. Over the course of a thirty to fifty-year license, conditions in the project area may change, therefore the original project boundary may not account for the current circumstances; based upon the public interest the Commission may need to make revisions during relicensing.

    b. Do you believe this rule should be different for the Pensacola Hydroelectric Project, FERC No. 1494, than for other hydroelectric projects licensed by the Commission? If so, why?

    RESPONSE: No, I believe the Pensacola Hydroelectric Project should be governed by the same rules that govern all hydropower licenses, and it is important to public safety that the Commission's authority over this project be sustained.

2. According to the Compliance Handbook published by the Commission's Division of Hydropower Administration and Compliance, many licenses "contain conditions that require specific reservoir water levels to be continuously maintained or maintained during specified periods of time … or target elevations within required reservoir operating bands. The purpose of these water-level requirements is to protect and enhance the recreational, scenic, and environmental resource values of a project. Non-compliance with the water-level requirements of a project reservoir could adversely affect the project's environmental integrity and quality."

    a. Do you believe that the Commission needs the authority to prescribe reservoir

water levels in its hydroelectric licenses in order to fulfill its statutory responsibilities under the Federal Power Act?

RESPONSE: The Commission has the authority to prescribe reservoir levels and it should continue to have that authority. The Commission must consider a range of issues during licensing, including but not limited to, navigation, irrigation, recreation, cultural resources, and adequate fish and wildlife protection, mitigation, and enhancement, as well as safety and flood control. Removing FERC's jurisdiction from a reservoir would remove the Commission's ability to meet our congressional mandates and could jeopardize public safety and resource protection.

The Honorable Billy Long (R-MO)

1. The last time the FERC Commissioners testified before this subcommittee, I asked Chairman McIntyre why City Utilities, a public utility owned by the City of Springfield, Missouri, is paying the highest energy cost in the Southwest Power Pool. I also asked why City Utilities is paying for transmission upgrades where the costs greatly exceed the benefits received, as shown by Southwest Power Pool's own study. The study shows that City Utility's benefit ratio is around .5, lower than the threshold of .8 needed to meet the Federal Power Act's Just and Reasonable Standard. At the same time, Chairman McIntyre expressed surprise that one entity would be paying substantially more for transmission service than others and promised to look into it.

    a. Are you or any of the other commissioners aware whether a wide discrepancy in benefits to customers remains within SPP?

    RESPONSE: Please refer to the answer submitted by Chairman Chatterjee.

2. On May 10th of last year at a hearing entitled "Examining the State of ELECTRIC Transmission Infrastructure: Investment, Planning, Construction, and Alternatives," John Twitty testified on behalf of the TAPS Group about the benefits of joint transmission ownership arrangements as an effective means of getting needed transmission facilities built. For more than a decade, FERC has reportedly expressed strong support for such arrangements, however your support has not spurred additional joint ownership arrangements. The Commission has recently initiated a notice of inquiry regarding its transmission incentives policies.

    a. Should the Commission do more to actively promote joint ownership arrangements involving public power entities?

    RESPONSE: I have consistently supported the promotion of joint ownership, both through the Commission's 2012 transmission incentives policy statement and our more recent 2019 Notice of Inquiry. I believe that joint ownership helps to support the successful siting and construction of needed transmission projects.

Subcommittee on Energy
Hearing on
"Oversight of FERC: Ensuring Its Actions Benefit Consumers and the Environment"
June 12, 2019

The Honorable Richard Glick
Commissioner
Federal Energy Regulatory Commission

The Honorable Paul D. Tonko (D-NY)

1. While distributed energy resources and storage are playing a growing role in our electricity system, transmission remains the backbone of our electricity infrastructure. As more utility-scale renewables are developed far from centers of demand, this infrastructure will become even more necessary. But we know these projects are incredibly difficult to plan, site, permit, and build.

    a. What in your opinion can FERC do to provide greater incentives to increase the utilization of existing transmission infrastructure through the deployment of advanced technologies and/or adoption of practices to maximize capacity and efficiency?

    RESPONSE: Better utilization of existing transmission infrastructure can improve reliability, reduce the cost of electricity, and help integrate renewable energy resources. One of the issues FERC considers when regulating the rates for transmission facilities under the Federal Power Act is whether those rates provide a sufficient return on investment to encourage necessary transmission investments. In addition, Congress, in the Energy Policy Act of 2005, directed the Commission to establish incentives to, among other things, "encourage deployment of transmission technologies and other measures to increase the capacity and efficiency of existing transmission facilities and improve the operation of the facilities."

    Earlier this year, the Commission issued notices of inquiry regarding both our approaches to transmission incentives and to setting the return on equity for transmission facilities. I am glad that the Commission is taking a fresh look at these policies. In addition, the Commission recently announced a staff-led technical conference to explore existing and advanced approaches to transmission line ratings and to discuss the potential adoption of approaches that enable more efficient and reliable use of transmission assets.

    I believe the Commission should use those proceedings, in part, to examine how it can better encourage investments to enhance the utilization of existing

transmission infrastructure. Utilities, in some circumstances, appear to have a greater incentive today to invest in new, more expensive transmission facilities than to make more limited investments to increase the efficiency of existing transmission lines. I hope the Commission will consider incentives designed to encourage utilities to make better use of existing transmission facilities, which is consistent with Congress' directive.

b. What are your recommendations for Congress to promote deployment of advanced transmission technologies on existing infrastructure?

RESPONSE: The U.S. Department of Energy's National Laboratories play an essential role in researching and developing advanced technologies as well as studying their potential applications in real world situations. Congress' support for the National Laboratories is critical to ensuring that we continue to develop and deploy technologies capable of increasing the efficiency of the country's transmission infrastructure.

In addition, Congress might also consider requiring the Commission or another agency, such as the Department of Energy, to conduct regular assessments of the potential to deploy advanced transmission technologies, as the Commission does for demand response and advanced metering pursuant to section 1252(e)(3) of the Energy Policy Act of 2005. Finally, support for pilot studies to examine the potential of advanced technologies might help to further break down barriers to their deployment.

2. We also know that the interregional planning process for new transmission infrastructure has not proven to be effective.

a. What in your opinion can FERC do to improve the interregional transmission planning process?

RESPONSE: In 2016, the Commission held a technical conference on competitive transmission development, which included a panel on interregional transmission coordination. I understand that some parties have expressed frustration that interregional transmission planning is not working as well as hoped. That is at least in part because different regions of the country are not required to engage in interregional transmission planning and so many regions do not thoroughly examine the potential benefits of interregional transmission facilities. In Order No. 1000, the Commission required transmission planners in one region to coordinate with their counterparts in neighboring regions, but did not require the regions to engage in actual interregional planning. I believe the time has come to consider requiring interregional transmission planning.

In recent years, the Commission has taken a number of steps to facilitate the development of interregional transmission facilities, especially along the seams between regional transmission organizations (RTOs) and independent system operators (ISOs), such as PJM Interconnection, L.L.C. (PJM) and Midcontinent Independent System Operator (MISO). For example, in 2016, the Commission granted a complaint and required MISO to lower the voltage threshold above which a transmission project must operate to qualify as an interregional economic transmission project in MISO and removed the cost threshold for these projects as well. In 2017, the Commission accepted PJM and MISO's proposal to create a new category of interregional transmission projects between the two regions, called targeted market efficiency projects, as well as a method for allocating the costs of these projects. I would like the Commission to continue exploring how it can promote these facilities along other RTO seams.

In addition, in the notice of inquiry the Commission issued earlier this year regarding its transmission incentives policy, the Commission asked for comments on whether, and if so how, the Commission should use incentives to encourage the development of interregional transmission projects. We recently received a number of comments in response to the notice of inquiry and are still reviewing them.

b. What are your recommendations for Congress to promote a more effective interregional planning process?

RESPONSE: Congress has previously provided funding to support the development of interconnection-based transmission plans. Such planning exercises can prove valuable in identifying the potential for interregional transmission facilities, even without a formal interregional planning requirement from FERC.

c. What safeguards should be considered to ensure there is transparency, efficiency, and fairness in that process?

RESPONSE: Public and stakeholder participation is an important element of any transmission planning process. The Commission needs to continue to ensure that all affected entities have a voice in the planning process and that transmission planners, whether they are RTOs and ISOs or individual public utilities, consider such input when identifying, planning, and developing transmission facilities.

3. There are many regions of the nation with high-potential for clean energy deployment and growing interconnection queues. It is my understanding that Texas has successfully aligned incentives to encourage transmission construction to connect those areas with demand centers.

    a. What in your opinion can FERC do outside of ERCOT to ensure right-sized transmission capacity is developed to meet high-potential clean energy regions?

    RESPONSE: Developing additional transfer capacity between load centers and regions with high potential for renewable resource development can benefit customers by accessing low-cost electricity and helping states achieve their goals to reduce electric sector greenhouse gas emissions. Earlier this year the Commission issued a notice of inquiry regarding its transmission incentives policy. As part of that inquiry, the Commission asked a number of questions regarding whether and how to facilitate the development of transmission facilities that can achieve this goal. We recently received a number of comments in response to the notice of inquiry and are still reviewing them.

    I also believe that it is important for the Commission to facilitate efforts among utilities, states, and other entities to identify and develop transmission projects that can help access remotely located renewable resources. Accessing these resources can require innovative solutions and the Commission must avoid being inflexible or dogmatic in reviewing any potential solutions for addressing these goals efficiently.

    b. What are your recommendations for Congress to promote efficient development of resources in these regions?

    RESPONSE: Congress should consider legislation to break down barriers to develop transmission infrastructure in renewable resource-rich regions. The federal government has already made significant investments in transmission infrastructure and may be well-positioned to facilitate the development of new infrastructure to access these resources.

The Honorable Joseph P. Kennedy III (D-MA)

1. Congress established the Office of Public Participation under the Public Utility Regulatory Policy Act (PURPA) of 1978. The office was designed to assist the public and consumer advocates by intervening in FERC proceedings. However, to date, the office has never formally been established by FERC nor directly funded by Congress.

a. Commissioner Glick, do you support the establishment of an Office of Public Participation at FERC?

RESPONSE: Several years ago, a group of public interest organizations led by Public Citizen filed a petition asking the Commission to formally create the Office of Public Participation pursuant to the 1978 legislation. Unfortunately, this petition still has not been noticed for public comment. I believe the Commission should seek comment on this petition and, if Congress provides funding, open an Office of Public Participation as is required by law.

b. Would such an office prove to be a valuable resource for consumers and public advocates seeking meaningful participation in FERC proceedings?

RESPONSE: Yes. Commission proceedings often involve complicated issues that require experience in engineering, economics, or other disciplines to fully appreciate. Although the public interest is something we should consider in every proceeding, that complexity can sometimes make it difficult for the public to participate fully and effectively in Commission proceedings. An Office of Public Participation could potentially help to break down barriers to meaningful public participation before the Commission.

The Honorable Marc Veasey (D-TX)

1. Standard license Article 5 of the conditions that the Commission includes in licenses for major hydroelectric projects affecting navigable waters of the United States requires licensees to acquire and retain sufficient land or rights to use lands needed to construct, maintain, and operate their projects. In the past, the Commission has taken the position that if project operations require the acquisition of additional lands or use rights, the project's boundaries may be amended to include lands previously outside of the project boundaries. E.g., PacifiCorp, 105 FERC P61, 237 at ¶114 (2003).

   a. Do you believe that the Commission's hydroelectric licensing jurisdiction should be limited to a project's original boundary or should the Commission retain its current authority to require a licensee to acquire sufficient land or rights to use lands to operate the project, even if those lands lie outside a project's historic boundary?

   RESPONSE: The Commission's current authority should be retained. Hydroelectric licenses must be in the public interest and it is important that the Commission have the authority to require licensees to take the steps needed to operate a hydroelectric facility consistent with that standard, which includes the ability to require a licensee to obtain the land or rights needed to operate a project.

b. Do you believe this rule should be different for the Pensacola Hydroelectric Project, FERC No. 1494, than for other hydroelectric projects licensed by the Commission? If so, why?

RESPONSE: No. I believe FERC's ability to ensure that the Pensacola Hydro Project is in the public interest would be impaired if Congress were to prohibit the Commission from ensuring the licensee take appropriate actions associated with the Project's boundaries.

2. According to the Compliance Handbook published by the Commission's Division of Hydropower Administration and Compliance, many licenses "contain conditions that require specific reservoir water levels to be continuously maintained or maintained during specified periods of time … or target elevations within required reservoir operating bands. The purpose of these water-level requirements is to protect and enhance the recreational, scenic, and environmental resource values of a project. Non-compliance with the water-level requirements of a project reservoir could adversely affect the project's environmental integrity and quality."

a. Do you believe that the Commission needs the authority to prescribe reservoir water levels in its hydroelectric licenses in order to fulfill its statutory responsibilities under the Federal Power Act?

RESPONSE: Yes. Prescribing reservoir water levels is one of the most effective tools available to the Commission for ensuring public safety and preserving the recreational, scenic, and environmental attributes of a hydroelectric facility. Without that authority, the Commission might not be able to fully protect those attributes or ensure that the facility is being operated consistent with the public interest.

The Honorable David B. McKinley (R-WV)

2. Many transmission assets are aging. My district is in the PJM footprint, which, as I understand it, has projects called supplemental projects that are projects identified by transmission owners to connect new customers and to upgrade their systems as needed to maintain reliability to the benefit of customers.

a. With transmission infrastructure being critical to the safety and security of our great Nation, what is FERC doing to ensure that Transmission Owners retain the ability to make asset management decisions in order to maintain and upgrade their systems as needed to continue the uninterrupted flow of electricity to consumers as required under their obligation to serve?

RESPONSE: The Commission has continued to allow transmission owners to identify projects within their service zones that are necessary to comply with

applicable reliability criteria, including the transmission owners' own planning criteria. At the same time, the Commission has acted to ensure that transmission owners are complying with their obligations to satisfy the Commission's transmission planning principles, including transparency and coordination with stakeholders. In PJM, the Commission recently acted to help ensure that the planning processes for supplemental projects remain open, transparent, and capable of facilitating coordination between transmission owners and stakeholders, including ratepayers.

3. I think that inconsistency in design standards would create operational risks, and increased transparency would increase security exposure t the detriment of the public.

   a. If FERC were to allow outside third parties to construct and operate piecemeal facilities on the incumbent transmission owner's grid through opening up supplemental projects to competition, do you agree this would create operational, security, and safety risks?

      RESPONSE: I think what is encompassed by the term supplemental projects is not always clear and is different for different transmission owners and regions, so I cannot say generically whether opening up supplemental projects to competition would create operational, security, and safety risks.

The Honorable Bill Flores (R-TX)

1. You mention the need to explore possible mitigation measures with respect to greenhouse gas emissions as projects are considered for approval. Will you please explain your mitigation expectations, and the costs of those mitigation measures, including:

   a. What is the impact on lost jobs,

      RESPONSE: The Natural Gas Act (NGA) gives the Commission the authority to attach reasonable terms and conditions to an order authorizing a project, be it an interstate natural gas pipeline or a facility for importing or exporting LNG. Those reasonable terms and conditions include measures intended to mitigate environmental harms associated with the project. The Commission's conditioning authority is critical to its ability to authorize these projects: Without such mitigation, some projects might fail to satisfy the NGA's public interest standard, meaning that they could not be approved by the Commission.

      The companies developing a project commonly propose environmental mitigation plans, which addresses impacts on the project on vegetation, wildlife, and wetlands, among other factors. Companies also frequently evaluate options for mitigating greenhouse gas emissions, including reduced reliance on natural-gas fired compression and carbon capture and sequestration. The Commission then

evaluates these mitigations plans, accepting the companies' proposals where they are consistent with the public interest and requiring additional mitigation as necessary.

The federal courts have made clear that the reasonably foreseeable greenhouse gas emissions caused by a project must be considered under the NGA's public interest standard. Consistent with that conclusion, I believe that the Commission should thoroughly consider all available options for mitigating the harm caused by the incremental impact that a project's greenhouse gas emissions will have on climate change. In addition to the mitigation options already considered by project applicants, one additional option might be to use zero-emissions credits to offset a project's greenhouse gas emissions. As with all forms of mitigation required by the Commission, these options would be adopted only where the Commission determined that they are necessary to find that the project is in the public interest.

A credit-based approach to mitigating greenhouse gas emissions would not have a major effect on most projects. These credits are widely available and would not delay the construction or operation of a project. I also do not believe that adopting such an approach to mitigation should have an adverse effect on jobs, the balance of payments, or tax revenue. As noted, the Commission imposes mitigation measures along these lines only where they are proposed by the project developer or deemed necessary to find that the project is in the public interest. In other words, without Commission-required mitigation a project could not be approved. Adopting this approach to mitigation could thus create jobs and generate tax revenue from projects that could not otherwise be found to be consistent with the public interest.

Furthermore, such mitigation would limit the significant cost to the human environment caused by greenhouse gases contributing to climate change. According to the Administration's own estimates of the social cost of carbon, which narrowly consider only domestic effects of climate change, every five million tons of greenhouse gas emissions imposes a cost of $35 million on Americans each year (and more than $1 billion over 30 years). The benefits of avoiding these emissions would exceed the cost of credit-based mitigation by 400-600 percent. Expanding the consideration to global impacts of climate change, the economic benefit of greenhouse gas mitigation would exceed the cost of mitigation by more than 25 times. As a result, I believe pursuing reasonable greenhouse gas mitigation would strengthen rather than adversely impact the economy including the local economies where these projects would be located.

b. What is the impact on balance of trade payments,

RESPONSE: See response to 1.a.

c. What is the environmental impact of delaying a potential customer's access to a cleaner-burning fuel coming from a project in which you are dissenting, and

RESPONSE: See response to 1.a.

d. What is the impact of loss tax revenue to the federal government as well as the impact on the deficit?

RESPONSE: See response to 1.a.

The Honorable Billy Long (R-MO)

1. The last time the FERC Commissioners testified before this subcommittee, I asked Chairman McIntyre why City Utilities, a public utility owned by the City of Springfield, Missouri, is paying the highest energy cost in the Southwest Power Pool. I also asked why City Utilities is paying for transmission upgrades where the costs greatly exceed the benefits received, as shown by Southwest Power Pool's own study. The study shows that City Utility's benefit ratio is around .5, lower than the threshold of .8 needed to meet the Federal Power Act's Just and Reasonable Standard. At the same time, Chairman McIntyre expressed surprise that one entity would be paying substantially more for transmission service than others and promised to look into it.

   a. Are you or any of the other commissioners aware whether a wide discrepancy in benefits to customers remains within SPP?

   RESPONSE: As Chairman Chatterjee explains: On August 12, 2019, the Commission issued an order denying the City Utilities of Springfield, Missouri's complaint against SPP regarding how SPP is applying its Highway/Byway transmission cost allocation methodology. The time period for requesting rehearing of the Commission order is still open, and therefore I cannot discuss the merits of this proceeding.

2. On May 10th of last year at a hearing entitled "Examining the State of ELECTRIC Transmission Infrastructure: Investment, Planning, Construction, and Alternatives," John Twitty testified on behalf of the TAPS Group about the benefits of joint transmission ownership arrangements as an effective means of getting needed transmission facilities built. For more than a decade, FERC has reportedly expressed strong support for such arrangements, however your support has not spurred additional joint ownership arrangements. The Commission has recently initiated a notice of inquiry regarding its transmission incentives policies.

a. Should the Commission do more to actively promote joint ownership arrangements involving public power entities?

RESPONSE: I agree that joint transmission ownership arrangements can offer significant benefits. Earlier this year, the Commission issued a notice of inquiry regarding its transmission incentives policy. As part of that inquiry, the Commission asked specific questions regarding (1) whether there are barriers to non-public utilities' ownership of transmission facilities and (2) whether the Commission should establish an incentive to promote joint ownership of transmission facilities between public and non-public utilities. We are still in the process of reviewing the comments received to date, which will help to determine what steps, if any, the Commission should take with regard to joint ownership.

Subcommittee on Energy
Hearing on
"Oversight of FERC: Ensuring Its Actions Benefit Consumers and the Environment"
June 12, 2019

The Honorable Bernard L. McNamee
Commissioner
Federal Energy Regulatory Commission

The Honorable Paul D. Tonko (D-NY)

1. While distributed energy resources and storage are playing a growing role in our electricity system, transmission remains the backbone of our electricity infrastructure. As more utility-scale renewables are developed far from centers of demand, this infrastructure will become even more necessary. However, we know these projects are incredibly difficult to plan, site, permit, and build.

    a. What in your opinion can FERC do to provide greater incentives to increase the utilization of existing transmission infrastructure through the deployment of advanced technologies and/or adoption of practices to maximize capacity and efficiency?

    RESPONSE: The thoughtful deployment of advanced transmission technologies to maximize the capacity and efficiency of the transmission system is an important issue. The use of such technologies can improve reliability, reduce congestion costs, and defer or offset the need for large capital investments in the transmission system, thereby lowering costs to consumers. As the Chairman notes in his response to this question, the Commission issued a Notice of Inquiry regarding the Commission's electric transmission incentives policies in Docket No. PL19-3-000. The Notice of Inquiry included questions regarding both advanced technologies and how to enhance the capacity, efficiency, and operation of the transmission grid. *See Inquiry Regarding the Commission's Electric Transmission Incentives Policy*, 166 FERC ¶ 61,208, at P 39 (2019). In addition, Commission staff will be hosting a technical conference on September 10 and 11, 2019 to discuss issues relating to transmission line ratings with a focus on dynamic and ambient-adjusted line ratings. I will consider the record in these proceedings and make a reasoned decision based on the law and the facts.

b. What are your recommendations for Congress to promote deployment of advanced transmission technologies on existing infrastructure?

RESPONSE: I do not have recommendations for Congress on this issue at this time.

2. We also know that the interregional planning process for new transmission infrastructure has not proven to be effective.

a. What in your opinion can FERC do to improve the interregional transmission planning process?

RESPONSE: Interregional transmission planning is extremely complicated, involving conflicting interests, complex cost allocation issues, and usually a multitude of viable options. Though the issues involved in interregional transmission planning are complicated, I believe that it is important to keep working with public utilities and all stakeholders to make the process more efficient and transparent so as to reduce barriers, ensure reliability, and provide benefits to customers.

b. What are your recommendations for Congress to promote a more effective interregional planning process?

RESPONSE: I do not have recommendations for Congress on this issue at this time.

c. What safeguards should be considered to ensure there is transparency, efficiency, and fairness in that process?

RESPONSE: Ensuring that the interregional transmission planning process is transparent, efficient, and fair is very important. As a Commission, we must be vigilant in balancing the concerns of all interested stakeholders.

3. There are many regions of the nation with high-potential for clean energy deployment and growing interconnection queues. It is my understanding that Texas has successfully aligned incentives to encourage transmission construction to connect those areas with demand centers.

a. In your opinion, what can FERC do outside of ERCOT to ensure right-sized transmission capacity is developed to meet high-potential clean energy regions?

RESPONSE: The Commission has supported initiatives to promote transmission development to deliver power generated by location-constrained resources. Of course, there is not a one-size fits all approach to transmission development. The

electric grid is a patchwork of various systems that has been built over a long period of time and by different entities. As a result, different regions have different system needs, and the Commission has long recognized the need for different approaches based on regional needs. *See, e.g.*, *Standardization of Generator Interconnection Agreements & Procedures*, 104 FERC ¶ 61,103, at P 26 (2003) (allowing for deviations from the *pro forma* large generator interconnection procedures and agreements based on "regional differences" and setting standards by which such deviations would be reviewed depending on the independence of the applicant). I think it is important for the Commission to continue to consider opportunities for new transmission initiatives within the framework of the Commission's various statutory authorities. Furthermore, I believe that it is important to keep working with public utilities and all stakeholders to make the process more efficient and transparent so as to reduce barriers, ensure reliability, and provide benefits to customers.

b. What are your recommendations for Congress to promote efficient development of resources in these regions?

RESPONSE: I do not have recommendations for Congress on this issue at this time.

<u>The Honorable Marc Veasey (D-TX)</u>

1. Standard license Article 5 of the conditions that the Commission includes in licenses for major hydroelectric projects affecting navigable waters of the United States requires licensees to acquire and retain sufficient land or rights to use lands needed to construct, maintain, and operate their projects. In the past, the Commission has taken the position that if project operations require the acquisition of additional lands or use rights, the project's boundaries may be amended to include lands previously outside of the project boundaries. E.g., PacifiCorp, 105 FERC P61, 237 at ¶114 (2003).

   a. Do you believe that the Commission's hydroelectric licensing jurisdiction should be limited to a project's original boundary or should the Commission retain its current authority to require a licensee to acquire sufficient land or rights to use lands to operate the project, even if those lands lie outside a project's historic boundary?

   RESPONSE: The Federal Power Act authorizes the Commission to license hydropower projects that "will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation, and

enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes . . . ." 16 U.S.C. § 803(a)(1) (2012). To ensure that the project will be best adapted to a comprehensive plan of the waterway, the Commission's regulations require that the licensed project boundary "must enclose only those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources." 18 C.F.R. § 4.41(h)(2)(2018).

Similar to the Chairman's answer to this question, over the course of a 30 to 50 year license term, environmental conditions and land uses (e.g., recreation) in a project area may change significantly and a new license may need to consider such changes. In any license application, I will base my decisions on the law and the facts in the proceeding. Determining whether the Commission's jurisdiction and authority should be modified is a decision for Congress.

b. Do you believe this rule should be different for the Pensacola Hydroelectric Project, FERC No. 1494, than for other hydroelectric projects licensed by the Commission? If so, why?

RESPONSE: Because the Pensacola Hydroelectric Project's[1] 30 year license will expire in March 2022, section 15 of the Federal Power Act requires GRDA to file a new license application by March 2020. 16 U.S.C. § 808(c)(1) (2012). The issue of the project boundary will be pending before the Commission at that time. I will consider the law and the facts to make a determination about the issues related to the project boundary and the use of the waterway.

2. According to the Compliance Handbook published by the Commission's Division of Hydropower Administration and Compliance, many licenses "contain conditions that require specific reservoir water levels to be continuously maintained or maintained during specified periods of time … or target elevations within required reservoir operating bands. The purpose of these water-level requirements is to protect and enhance the recreational, scenic, and environmental resource values of a project. Non-compliance with the water-level requirements of a project reservoir could adversely affect the project's environmental integrity and quality."

   a. Do you believe that the Commission needs the authority to prescribe reservoir water levels in its hydroelectric licenses in order to fulfill its statutory responsibilities under the Federal Power Act?

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[1] The Pensacola Hydroelectric Project is owned and operated by the Grand River Dam Authority (GRDA).

RESPONSE: The Federal Power Act authorizes the Commission to "require the modification of any project" to ensure that a licensed hydropower project "will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes . . . ." 16 U.S.C. § 803(a)(1) (2012). Further, the FPA authorizes the Commission to require "other conditions not inconsistent with the provisions of [the] Act." *Id.* § 803(g). In any specific case, I will consider the law and the facts in making a decision. Determining whether the Commission's jurisdiction and authority should be modified is a decision for Congress.

The Honorable Bill Johnson (R-OH)

1. Ensuring electricity markets do not unduly prohibit the entrance of new energy technologies is an extremely difficult task. The FERC must balance a wide and complex array of stakeholder interest and concerns when looking into these issues, and ultimately ensure that the rules are fair and that the rule of law is followed. Commissioner McNamee expressed concern in this regard to Order No. 841, particularly relating to the separation of federal and state responsibilities. Commissioner McNamee, can you please elaborate on this concern?

RESPONSE: As I discuss in greater detail in my separate statement to Order No. 841-A,[2] which I am attaching to these QFR responses, the Commission's jurisdiction is limited to the transmission of electric energy in interstate commerce and wholesale sales in interstate commerce (i.e., sales for resale), and the facilities used for such transmissions or sales. 16 U.S.C. § 824(b)(1). Notably, the Federal Power Act explicitly excludes from Commission jurisdiction "facilities used in local distribution." *Id.* States have historically exercised jurisdiction over retail sales (i.e., sales to the consumer) and the distribution system, as well as the facilities that make up the distribution system. As I stated in my partial concurrence and dissent to Order 841-A:

> [T]he majority has exceeded the Commission's jurisdictional authority by depriving the states of the ability to determine whether distribution-level ESRs may use distribution facilities so as to access the wholesale markets. By doing so, in my view, the

[2] 167 FERC ¶ 61,154 (2019).

> Commission claimed jurisdiction over functions and assets reserved by statute to the states. Further, even if the majority thought they could rightly exercise jurisdiction in this matter, I think they should have furthered the path of "cooperative federalism" by permitting the states to choose whether or not behind-the-meter and distribution-connected ESRs may participate in the wholesale markets through an opt-out provision.[3]

To be clear, I think that ESRs have the potential to transform and benefit the electric grid. Indeed, I made this clear in my separate statement on Order No. 841-A. I wish here to reiterate that I supported, and continue to support, the Commission's storage orders to the extent that they removed barriers to entry and enhanced competition in the wholesale markets and permit ESRs located on the transmission system to participate in the markets on equal footing with other resources.

a. Can you please comment on FERC's justification for how it approached Order No. 841?

RESPONSE: I was not a member of the Commission when Order No. 841 was being deliberated or when it was issued. However, I disagreed with the majority's approach in Order No. 841-A, which upheld the Commission's assertion of jurisdiction over ESRs on the distribution system and behind the meter to permit them to access the wholesale market. As I noted in my separate statement, "the majority has exceeded the Commission's jurisdictional authority by depriving the states of the ability to determine whether distribution-level ESRs may use distribution facilities so as to access the wholesale markets."

The Honorable David B. McKinley (R-WV)

1. We are concerned about an expansion of FERC jurisdiction into distribution and retail areas that state and local authorities currently regulate. In 2018, FERC finalized an order (Order NO. 841) to allow electric storage located on distribution facilities and at the retail level, which is regulated at state and local levels, to participate in RTO and ISO wholesale markets. However, this order does not allow state and local authorities to

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[3] *Elec. Storage Participation in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, 167 FERC ¶ 61,154 (2019) (McNamee, Comm'r, concurring in part & dissenting in part, at P 3) (citing *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760, 779-80 (2016) (*EPSA*)) (footnote omitted).

determine whether it is appropriate for such participation to occur, in contrast to the 2008 FERC orders (Order Nos. 719 and 719-A) involving the aggregation of demand response resources located at the retail level for participation in RTO and ISO wholesale markets. Since demand response resources exist at the retail level, FERC recognized that state and local authorities have the authority to regulate this activity.

a. By rejecting the cooperative federalism approach FERC established in its demand response order, doesn't the electric storage order expand FERC's jurisdiction at the expense of state and local authorities?

   RESPONSE: Yes. As discussed in greater detail in my separate statement to Order No. 841-A, which I have attached to these QFR responses, and as summarized above in response to Congressman Johnson of Ohio, I believe that the majority's opinion in that order unlawfully expands the Commission's jurisdiction at the expense of state and local authorities.

b. Can you explain the rationale embedded in the electric storage order for rejecting the cooperative federalism approach FERC established in its demand response order?

   RESPONSE: Again echoing my above response to Congressman Johnson of Ohio, I was not a member of the Commission when Order No. 841 was being deliberated or when it was issued. However, I disagreed with the majority's approach on rehearing in Order No. 841-A, which upheld the Commission's assertion of jurisdiction over ESRs on the distribution system and behind the meter to permit them to access the wholesale market.

   You are correct in pointing out that the Commission in Order Nos. 841 and 841-A (Storage Orders) went beyond the precedent established in the Demand Response (DR) orders. The DR orders were challenged by the Electric Power Supply Association (EPSA), among others, and the Supreme Court's decision in *EPSA* is directly relevant to the Storage Orders. As I noted in my separate statement:

   > [T]he *EPSA* Court concluded that the opt-out feature [granted to states] removed "any conceivable doubt as to its compliance with [FPA section 201(b)'s] allocation of federal and state authority."
   >
   > I also note that, when the *EPSA* Court determined that the Commission's DR regulation did not improperly regulate retail electric sales, it did so by, in part, noting "whatever the effects at the retail level, every aspect of the regulatory plan happens exclusively on the wholesale market and governs

> exclusively that market's rules." I believe that the requirement in the Storage Orders that states must permit distribution and behind-the-meter ESRs to use distribution facilities to access the wholesale markets creates a regulatory plan that fails to "happen[] exclusively" on the wholesale market and fails to exclusively govern the wholesale market's rules. The majority's position in this regard goes beyond the position supported by *EPSA*, which involved determining "how" resources will participate in the wholesale market. The issue has been expanded by the majority in this matter to include "whether" ESRs must be permitted to participate in the wholesale market by effectively mandating access to distribution facilities.[4]

The Honorable Billy Long (R-MO)

1. The last time the FERC Commissioners testified before this subcommittee, I asked Chairman McIntyre why City Utilities, a public utility owned by the City of Springfield, Missouri, is paying the highest energy cost in the Southwest Power Pool. I also asked why City Utilities is paying for transmission upgrades where the costs greatly exceed the benefits received, as shown by Southwest Power Pool's own study. The study shows that City Utility's benefit ratio is around .5, lower than the threshold of .8 needed to meet the Federal Power Act's Just and Reasonable Standard. At the same time, Chairman McIntyre expressed surprise that one entity would be paying substantially more for transmission service than others and promised to look into it.

    a. Are you or any of the other commissioners aware whether a wide discrepancy in benefits to customers remains within SPP?

    RESPONSE: As the Chairman notes in response to this question, the Commission issued an order denying the City Utilities of Springfield, Missouri's complaint against SPP on August 12, 2019. *City Utilities of Springfield, Mo. v. Sw. Power Pool, Inc.*, 168 FERC ¶ 61,085 (2019). The time period for requesting rehearing of the Commission order is still open, and therefore I cannot discuss the merits of this proceeding.

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[4] *Elec. Storage Participation in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, 167 FERC ¶ 61,154 (2019) (McNamee, Comm'r, concurring in part & dissenting in part, at PP 10-11) (footnotes & citations omitted).

2. On May 10th of last year at a hearing entitled "Examining the State of Electric Transmission Infrastructure: Investment, Planning, Construction, and Alternatives," John Twitty testified on behalf of the TAPS Group about the benefits of joint transmission ownership arrangements as an effective means of getting needed transmission facilities built. For more than a decade, FERC has reportedly expressed strong support for such arrangements, however your support has not spurred additional joint ownership arrangements. The Commission has recently initiated a notice of inquiry regarding its transmission incentives policies.

    a. Should the Commission do more to actively promote joint ownership arrangements involving public power entities?

    RESPONSE: As you note, the Commission has started a proceeding to inquire about the Commission's transmission incentives policies, which could include the use of incentives to promote joint ownership arrangements of transmission facilities with non-public utilities. *See Inquiry Regarding the Commission's Electric Transmission Incentives Policy*, 166 FERC ¶ 61,208, at P 32 (2019). I will consider the record in that proceeding and make a reasoned decision based on the law and the facts about the role that joint ownership arrangements should have going forward.

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators	Docket Nos.	RM16-23-001 AD16-20-001

(Issued May 16, 2019)

McNAMEE, Commissioner, *concurring in part and dissenting in part*:

1. Electric energy storage resources (ESRs) have the potential to transform the electricity industry. ESRs will allow the electric transmission system[1] to take full advantage of periods of high generation from intermittent resources, such as wind and solar, and use that energy in times when those resources are not available but energy is needed. Market participation by a growing number of ESRs also will enable greater shifting between generation and load – thereby enhancing reliability and market signals. Within the correct regulatory and policy framework, ESRs can unlock significant economic and market efficiency benefits that have to date eluded the electric industry, its regulators, and – most importantly – consumers. As the Commission stated in Order No. 841, "effective integration of electric storage resources into the RTO/ISO markets would enhance competition and, in turn, help to ensure that these markets produce just and reasonable rates."[2] Although I was not on the Commission when Order No. 841 was approved, I support its efforts to promote the participation of ESRs in the wholesale markets.

2. I write separately because I am concerned that, like Order No. 841, today's order on rehearing fails to recognize the states' interests in ESRs located behind a retail meter (behind-the-meter) or connected to distribution facilities.[3] I believe Order Nos. 841 and

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[1] In this statement, I attempt to avoid use of the term "grid" because it is imprecise and can lead to jurisdictional confusion. The majority in today's order appears frequently to use the term "grid" without distinguishing whether it refers to the transmission system, distribution-level facilities, or both.

[2] *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127, at P 12 (2018) (Order No. 841).

[3] In this statement, I use the term "states" to refer broadly to Relevant Electric

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841-A (Storage Orders) are on solid footing when they deal with ESRs connected to the transmission system and how ESRs may participate in the wholesale market, and I concur in those aspects of today's order. I am troubled, however, that the Storage Orders do not fully respect or consider the impact they may have on local distribution systems, the states that regulate those local distributions systems, and local retail customers. To that end, I dissent from today's order. I would have granted the rehearing requests asking the Commission to reconsider: (i) its finding that it has jurisdiction over whether ESRs located behind-the-meter or on the local distribution system are permitted to participate in the RTO/ISO markets through the ESR participation model and thereby asserting jurisdiction over distribution facilities;[4] and (ii) its failure to provide states the opportunity to opt-out of the participation model created by the Storage Orders.[5] In response to Order No. 841, the following entities either requested rehearing on or clarification of the Commission's assertion of jurisdiction over, or of its failure to provide an opt-out to the states related to, ESRs: National Association of Regulatory Utility Commissioners (NARUC);[6] the group consisting of American Municipal Power, Inc. (AMP), the American Public Power Association (APPA) and the National Rural Electric Cooperative Association (NRECA);[7] Edison Electric Institute (EEI);[8] Transmission

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Retail Regulatory Authorities (RERRAs).

[4] *See, e.g.*, National Association of Regulatory Utility Commissioners Request for Clarification and Rehearing at 3-8 (NARUC Request for Rehearing); Organization of MISO States Amended Motion for Clarification at 3-6; Pacific Gas and Electric Company Motion for Clarification at 1-3 (PG&E Motion for Clarification).

[5] *See, e.g.*, Edison Electric Institute Request for Rehearing and Clarification at 7-8 (EEI Request for Rehearing); American Municipal Power, Inc., American Public Power Association, & the National Rural Electric Cooperative Association Request for Rehearing at 3 (AMP, APPA, & NRECA Request for Rehearing).

[6] *See generally* NARUC Request for Rehearing.

[7] AMP, APPA, & NRECA Request for Rehearing at 3, 11, 13-15.

[8] EEI Request for Rehearing at 3-8.

Access Policy Study Group (TAPS);[9] Organization of MISO States;[10] Pacific Gas and Electric Company;[11] and Xcel Energy Services Inc. (Xcel).[12]

3. As set forth below, I conclude the majority has exceeded the Commission's jurisdictional authority by depriving the states of the ability to determine whether distribution-level ESRs may use distribution facilities so as to access the wholesale markets. By doing so, in my view, the Commission claimed jurisdiction over functions and assets reserved by statute to the states. Further, even if the majority thought they could rightly exercise jurisdiction in this matter, I think they should have furthered the path of "cooperative federalism"[13] by permitting the states to choose whether or not behind-the-meter and distribution-connected ESRs may participate in the wholesale markets through an opt-out provision.

I. The Commission Lacks Jurisdiction over ESRs Connecting at the Distribution Level or Behind-the-Meter

4. The analysis of whether the Commission has authority to effectively direct the states to permit ESRs to use distribution facilities to reach the wholesale markets begins with the text of the Federal Power Act (FPA).[14] As a creature of statute, the Commission has only that authority Congress has conferred upon it.[15] As relevant here, the FPA grants the Commission jurisdiction to regulate electricity in two areas: (i) "transmission of electric energy in interstate commerce," and (ii) "the sale of electric energy at

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[9] TAPS Request for Rehearing at 1-12.

[10] Organization of MISO States Amended Motion for Clarification at 3-6.

[11] PG&E Motion for Clarification at 1-3.

[12] Xcel Request for Rehearing at 6-16.

[13] *See, e.g.*, *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760, 779-80 (2016) (*EPSA*) (noting that while the Commission claimed it could negate state decisions, it chose not to do so "in recognition of the linkage between wholesale and retail markets and the States' role in overseeing retail sales. . . . Wholesale demand response as implemented in the Rule is a program of cooperative federalism in which the States retain the last word.")

[14] 16 U.S.C. § 824 (2012).

[15] *See, e.g.*, *Emera Me. v. FERC*, 854 F.3d 9, 25 (D.C. Cir. 2017).

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wholesale in interstate commerce."[16] But the FPA is explicit in stating that the Commission does not have jurisdiction "over *facilities* used for the generation of electric energy or over *facilities* used in local distribution or only for the transmission of electric energy in intrastate commerce . . . ."[17] These subjects are reserved to the states.

5. Order No. 841-A mandates that ESRs be permitted to use distribution facilities so that they may access the wholesale electric market.[18] There is no doubt that the participation of ESRs behind-the-meter or on the distribution lines can "affect wholesale rates," but in order to "affect" wholesale rates such ESRs must first have access to the wholesale market, and they can only do so by using distribution facilities. In my view, the FPA does not provide the Commission with the authority to require that distribution facilities permit ESRs to use those facilities to access wholesale markets.

6. As I set forth in greater detail below, the legal analysis that supports the Commission's jurisdiction to regulate wholesale rates for demand response (DR) and energy efficiency resources (ERRs) is inapposite when considering ESRs. DR and EERs involve customers (or aggregators) voluntarily agreeing to reduce their loads for a certain price, a practice which the Commission and court agree directly affects wholesale rates.[19]

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[16] 16 U.S.C. § 824(b)(1).

[17] *Id.* (emphasis added). *See Detroit Edison Co. v. FERC*, 334 F.3d 48, 54 (D.C. Cir. 2003) ("Section 201(b)(1) denies FERC jurisdiction over 'facilities used in local distribution.' FERC would rewrite the statute to exclude only 'facilities used *exclusively* in local distribution.' Such an interpretation would eviscerate state jurisdiction over numerous local facilities, in direct contravention of Congress' intent.") (citations omitted)); *but cf. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277, 1279, 1282 (D.C. Cir. 2007) (concerning the adoption of a standard interconnection agreement and which can be distinguished on a number of grounds, including that: (i) the distribution facilities were participating in a Commission-filed Open Access Transmission Tariff; and (ii) involved generators larger than 20 megawatts).

[18] Order No. 841-A prohibits states from preventing ESRs from participating in wholesale electric markets, which has the effect of directing that ESRs have access to distribution facilities. *Electric Storage Participation in Markets Operating by Regional Transmission Organizations and Independent System Operators*, Order No. 841-A, 167 FERC ¶ 61,154 at PP 38-49 (2019) (Order No. 841-A).

[19] *See EPSA*, 136 S. Ct. at 774-75 (finding that rules governing wholesale DR directly affect the wholesale rate); *Advanced Energy Economy*, 161 FERC ¶ 61,245, at P 60 (2017) (*AEE*), *reh'g denied*, 163 FERC ¶ 61,030 (2018) (finding that the Commission has jurisdiction over the participation of EERs in organized wholesale

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The entity choosing to reduce load through DR or EER is acting behind-the-meter and, by its voluntary act, it literally does not "use" the distribution facilities; it is affirmatively choosing to reduce its consumption of electricity. In the case of an ESR located either behind-the-meter or on the distribution system, the only way it can sell its energy at wholesale is by using distribution facilities to deliver energy to the wholesale market.

7. In Order No. 841, the Commission concluded that because ESRs' sales and purchases can affect wholesale rates, the Commission therefore has the authority to dictate that ESRs have access to the wholesale market through distribution facilities. But such an approach borders on teleology as legal analysis. The FPA is clear: the regulation of distribution facilities is not within the jurisdiction of the Commission.[20] It is only when an ESR is provided access to the wholesale power markets through the distribution facilities that the Commission can exercise its authority; but the Commission cannot mandate that such access be provided on the local distribution facilities. That decision remains with the local distribution utilities and the states that regulate them.

8. I acknowledge that the mere fact that a distribution facility is involved is not dispositive as to whether the Commission can exercise jurisdiction. If a state permits ESRs to connect to the distribution system and sell power at wholesale, the Commission has jurisdiction to regulate those sales. But, the decision – the jurisdiction – to allow the ESRs to physically connect to the distribution system lies with the states.[21]

9. The majority relies on the Supreme Court's decision in *EPSA* to support their decision to prohibit states from preventing an ESR on a distribution system or behind-the-meter from participating in the RTO/ISO markets through the participation model. In my opinion, *EPSA* is distinguishable from the issues considered by the Commission in Order No. 841. *EPSA* involved whether the Commission had jurisdiction over DR transactions and, if it did, whether the Commission could justify, under specific circumstances, the equal compensation of DR providers and wholesale generation.[22] In Order No. 841, the Commission asserted that because ESRs can effect wholesale rates,

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markets as a practice directly affecting wholesale rates).

[20] 16 U.S.C § 824(b)(1).

[21] *See, e.g.*, NARUC Request for Rehearing at 4; APA, APPA, & NRECA Request for Rehearing at 10-11. I further consider that this limitation on the Commission's authority to order the participation of ESRs behind-the-meter or on the distribution system applies with equal force to public power and electric cooperatives that are exempt from Part II of the FPA. *See* 16 U.S.C. § 824(f).

[22] *EPSA*, 136 S. Ct. at 767, 771-72.

ESRs must be allowed to connect behind-the-meter and to the distribution facilities in order to participate in the wholesale markets.[23]

10. Another important distinction between *EPSA* and the matter before us is that under Order Nos. 719 and 745, as the *EPSA* Court itself recognized, wholesale operators were required to accept "demand response bids from aggregators of electricity consumers, except when the state regulatory authority overseeing those users' retail purchases bars such demand response participation."[24] Thus, the DR program under review in *EPSA* already provided for an opt-out for the states. Said differently, the *EPSA* Court's analysis was undertaken in a factual setting in which states already had been provided with an opt-out.[25] In fact, the *EPSA* Court concluded that the opt-out feature removed "any conceivable doubt as to its compliance with [FPA section 201(b)'s] allocation of federal and state authority."[26]

11. I also note that, when the *EPSA* Court determined that the Commission's DR regulation did not improperly regulate retail electric sales, it did so by, in part, noting "whatever the effects at the retail level, every aspect of the regulatory plan happens exclusively on the wholesale market and governs exclusively that market's rules."[27] I believe that the requirement in the Storage Orders that states must permit distribution and behind-the-meter ESRs to use distribution facilities to access the wholesale markets creates a regulatory plan that fails to "happen[] exclusively" on the wholesale market and

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[23] As I noted immediately above, the fact that *EPSA* involved DR and not ESRs is a point of important distinction here. *See supra* P 6 *see also infra* PP 17-18.

[24] *EPSA*, 136 S. Ct. at 771 (citing *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, 125 FERC ¶ 61,071, at P 154 (2008) (Order No. 719); *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, 134 FERC ¶ 61,187, at P 114 (2011) (Order No. 745)).

[25] In considering EPSA's arguments that the Commission had "usurped state power," *id.* at 777, the Court dismissed them noting that the "finishing blow" to those arguments was the Commission's "notable solicitude toward the States" by "allow[ing] any State regulator to prohibit its consumers from making demand response bids in the wholesale market." *Id.* at 779 (citations omitted).

[26] *Id.* at 780.

[27] *Id.* at 776. *See also supra* P 6 (discussion that DR does not "use" the distribution facilities).

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fails to exclusively govern the wholesale market's rules.[28] The majority's position in this regard goes beyond the position supported by *EPSA*, which involved determining "how" resources will participate in the wholesale market.[29] The issue has been expanded by the majority in this matter to include "whether" ESRs must be permitted to participate in the wholesale market by effectively mandating access to distribution facilities.[30]

12. In short, I would have granted rehearing to find that the Commission exceeded its jurisdiction by prohibiting states from determining whether ESRs could be connected to distribution facilities.[31]

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[28] *EPSA*, 136 S. Ct. at 776.

[29] This position was argued by some in their requests for rehearing or clarification of Order No. 841. *See, e.g.*, NARUC Request for Rehearing at 6.

[30] The issue of whether ESR functions as generation, and therefore is subject to state jurisdiction for construction, siting, and permitting was not addressed by the Storage Orders.

[31] Additionally, I am concerned that the Commission's denial of rehearing on these issues may be perceived as impermissible commandeering of the states to implement federal policy, which is prohibited by the Constitution. The Storage Orders do not merely pre-empt state authority, but require states to act in or to implement the Commission's direction to permit ESRs to connect to distribution facilities or face untenable impacts to retail electric service. *See infra* pt. II.A. Most local distribution systems are considered public utilities whose rates, terms and conditions are regulated by the state. This means that integration of ESRs – including safety and reliability standards as acknowledged by Order No. 841-A – will require review and action by the states before the distribution utility may implement the Commission's order. *See* Order No. 841-A, 167 FERC ¶ 61,154 at P 42 (acknowledging that states have jurisdiction over the interconnections of certain resources to the distribution system and the requirements reasonably related to those interconnections). It is also possible that a state law may need to be changed so as to permit ESRs to connect to the distribution facilities. Our structure of government under the Constitution prohibits the federal government from requiring states to enact statutes or to regulate on its behalf. *See New York v. United States*, 505 U.S. 144, 175-76 (1992); *Printz v. United States*, 521 U.S. 898, 935 (1997).

II. The Commission Should Have Exercised its Discretion to Include an Opt-Out Provision for the States

13. Regardless of whether the Commission has jurisdiction over ESRs connected to distribution facilities, I would have supported the Commission exercising its discretion to provide an opt-out provision for the states.

14. The majority today also relies on the Commission's order in *AEE* to support their decision to not provide states with an opt-out in Order No. 841.[32] In *AEE*, the Commission considered a request for a declaratory ruling that, among other things, found the Commission had exclusive jurisdiction under the FPA to regulate the participation of certain EERs in wholesale electricity markets and that the states lacked the authority to bar or otherwise interfere with the participation of EERs in those markets. The Commission found that it had exclusive jurisdiction "over the participation of EERs in wholesale markets[, and] that RERRAs may not bar, restrict, or otherwise condition the participation of EERs in wholesale electricity markets unless the Commission expressly gives RERRAs such authority . . . ."[33] The Commission also found that Order No. 719 did not require that an opt-out be provided to a state related to the sale of EERs into the wholesale electricity markets.[34]

15. Importantly, however, the Commission recognized in *AEE* that we "ha[ve] discretion to decide whether to grant states an opt-out from allowing participation of EERs in wholesale electricity markets."[35] Moreover, in describing its decision in *AEE* not to provide an opt-out to the states with respect to EERs as it did with DR (as discussed in *EPSA*), the Commission also observed that "[u]nlike demand response resources, EERs are not likely to present the same operational and day-to-day planning complexity that might otherwise interfere with [a Load Serving Entity's] day-to-day operations."[36] As set forth below, the Commission's observations in *AEE* persuade me that it would have been appropriate to provide an opt-out to the states in the Storage Orders.

16. Therefore, while the Commission's exercise of jurisdiction in this matter was inappropriate in my view, even if the Commission had jurisdiction over the participation

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[32] Order No. 841-A, 167 FERC ¶ 61,154 at PP 37, 50.

[33] *AEE*, 161 FERC ¶ 61,245 at P 57.

[34] *Id.*

[35] *Id.* P 62.

[36] *Id.* P 63.

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in the wholesale markets of ESRs connected to the distribution system or behind-the-meter, the Commission could have achieved a more just result by exercising its discretion to offer the states an opt-out provision. As I noted above, among those requesting rehearing in response to the Commission's failure to include an opt-out in the Storage Orders was NARUC, which represents the views of the state utility commissions. In addition, EEI, APPA, AMP, and NRECA similarly challenged the Commission's failure in Order No. 841 to include an opt-out. The memberships of these entities combined represent the vast majority of load serving entities in the United States. It is important to take their concerns seriously and to address them.

A. An Opt-Out Provision Would Reduce the ESR-Related Burden on States and Local Utilities

17. The Storage Orders will likely result in day-to-day operational impacts on the distribution system greater than those presented by EERs or DR, but without providing states an opportunity to avoid these impacts by allowing them to opt-out. In my view, there are fundamental differences between DR and EERs, on the one hand, and ESRs on the other. As noted above, DRs and EERs reflect a customer's decision voluntarily not to consume electric energy, whereas ESRs reflect an injection (generation) or consumption (load) of energy from behind-the-meter and onto distribution facilities. An ESR's activity quite literally pushes or pulls energy across the distribution facilities and thereby has a very real physical impact on the distribution system. The physical nature of an ESR's activities may impact the operations of distribution-level facilities as well as their safety and reliability in a manner that DR's and EERs' voluntary decision not to consume electricity does not. As noted in comments filed in this record, voluntary customer reductions in load have a very different impact on the distribution system from the "bidirectional trafficking of energy across the distribution grid" of ESRs.[37] The real physical and operational impacts ESRs have on the distribution system in my estimation weigh in favor of the Commission exercising its discretion to provide an opt-out to the states in this matter.

18. I am concerned that the Storage Orders potentially will create complications for, and impact the day-to-day operations and management of, the distribution system – as well as its safety and reliability – in a manner that is in fact *greater* than the impact of demand response resources because ESRs actually inject energy into the system. One commenter in its request for rehearing recognized that states "should be entitled to *more* deference with respect to electric storage resources that inject power into the distribution system and can dramatically re-shape load curves, thereby creating more significant operational, safety, and reliability concerns for retail customer interconnections and

[37] *See* Xcel, Comments, Docket Nos. RM16-23-000 and AD16-20-000, at 8 (filed Feb. 13, 2018).

distribution systems."[38] Similarly, another set of commenters argued, "[b]ecause ESRs can inject energy into the grid, unlike demand response, there is arguably an even greater need for preservation of the states' authority over rules for participation in order to 'maintain the safety and the reliability of the distribution system or their use of [ESRs] on their systems.'"[39] These comments identify material operational concerns as well as hardships in guaranteeing the safety and reliability of the distribution system that under observations made in *AEE* weigh in favor of exercising the Commission's discretion for providing an opt-out provision in the Storage Orders.

19. We must also consider that the operational, safety and reliability concerns highlighted by commenters may increase costs to the states or distribution utilities and, ultimately, to consumers. Order No. 841 holds that "state responsibilities include, among other things, retail services and matters related to the distribution system, including design, operations, power quality, reliability, and system costs."[40] However, the majority in Order No. 841-A dismisses the issue of increased cost on the distribution system as "outside the scope of this proceeding" and argues that "we are not changing the responsibilities of the distribution utilities."[41] I disagree. Based on the record, it is clear that many parties feel strongly that the Storage Orders do in fact increase their responsibilities, and if the majority does not want to address these issues in this proceeding, then they should at least provide an option for states to avoid these costs by opting out.

20. As one party noted in its request for rehearing, the Storage Orders "impose significant new costs on distribution companies and raise questions about cost recovery from retail customers in retail rates to accommodate the wholesale market participation of electric storage resources[,]"[42] and "distribution utilities will be required to allow storage resources to use their wires to transmit energy to and from the electric transmission grid, imposing new stresses on the distribution system and imposing added costs on the distribution utilities."[43] Yet, instead of confronting issues involving new stressors to

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[38] TAPS Request for Rehearing at 4 (emphasis in original).

[39] APA, APPA, & NRECA Request for Rehearing at 15 (quoting Order No. 841, 162 FERC ¶ 61,127 at P 36).

[40] Order No. 841, 162 FERC ¶ 61,127 at P 36.

[41] Order No. 841-A, 167 FERC ¶ 61,154 at P 156.

[42] Xcel Request for Rehearing at 9.

[43] *Id.*

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distribution systems arising from ESRs – including injections of energy at the distribution level – the majority merely repeats the fact that distribution companies and states will still regulate safety and reliability.[44] But the majority misses the point, as those safety and reliability regulations can be challenging and expensive tasks. For example, in discussing the 100 kW minimum size threshold for participation, EEI expressed concerns with the potential impacts of an influx of ESRs:

> There is concern that the number of ESRs that could potentially seek to participate in the wholesale market at the proposed threshold could become so voluminous that they: 1) exceed the ability of RTOs/ISOs to manage this volume of resources, 2) exceed the ability of [distribution utilities] to address various reliability, operational and interconnection mat[t]ers given that smaller resources are far more likely to interconnect to distribution, and 3) impose implementation costs significantly greater than corresponding benefits, particularly in regions where resources of the 100 kW size have other "compensation" options such as net energy metering.[45]

21. The majority also should not dismiss concerns over equity or cost allocation. When a distribution utility is concerned that it "will need to harden the underlying distribution system to support bidirectional power flows and pay for substantial metering upgrades"[46] to accommodate ESRs, and that the associated costs "could be trapped at the distribution level and allocated to end-users rather than wholesale market participants[,]"[47] in my view the Commission should not flatly disclaim involvement. The majority is willing to assert jurisdiction over the distribution system through the participation model, but they are unwilling to confront or take responsibility for the practical ramifications of their decisions.

22. Given the complexities and uncertainties mentioned above, the Commission should have included an opt-out provision. Further, the fact that ESR-related costs may not yet be well-known and may come in different forms (e.g., potential upgrades to

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[44] Order No. 841, 162 FERC ¶ 61,127 at P 36; Order 841-A, 167 FERC ¶ 61,154 at P 46. As noted *supra* in footnote 31, the imposition of this burden by the Commission raises potential questions of unconstitutional commandeering of the states.

[45] EEI Request for Rehearing at 9.

[46] Xcel Request for Rehearing at 23.

[47] *Id.* at 24.

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components of the distribution system, increased administrative effort and time on the part of distribution utilities and states, etc.) supports the argument for an opt-out provision. It is these potential problems that provide the Commission with the reason to exercise its discretion to provide the states an opt-out provision with respect to ESRs.

B. An Opt-Out Provision Would Improve Transparency and Allow Non-Participating States to Experiment and Innovate

23. Further, Order No. 841 has the potential to stymie innovation in ESRs behind-the-meter or connected at the distribution level. NARUC filed comments stating that "[u]tility-scale energy storage is now shifting from a few experimental programs to prominent State-prompted deployments such as those in California, with more and more States looking expand the use of energy storage resources"[48] and urging the Commission to "avoid inhibiting State efforts to build on these successful installations and encourage system operators to include storage in their integrated planning."[49] As with other policy approaches under a system of cooperative federalism, in my view it is important for the Commission to acknowledge that we do not have all the answers, and states play a vital role as policy laboratories when it comes to broad initiatives that have significant state-by-state details to be ironed out. Further, in general, I believe it is unwise for a federal administrative agency to implement a top-down policy when the needs of a state or distribution utility call for a tailored approach.

24. Finally, one of the important obligations of our government is to provide and encourage transparency to citizens as to who in government is responsible to the people. In the complex and overlapping jurisdictions of electricity, a retail customer with a complaint or question about his or her bill or service may find it difficult to know whom to contact about that service. When service involves the distribution system, it is natural for a customer to call the local utility or the state public utility commission. The Commission should be cognizant that, by denying states an opt-out provision with respect to the Storage Orders, the majority is not only placing a burden on the distribution utility or the state to address any impacts of ESRs on the distribution system, they are in effect asking the distribution utility or state to take ownership of and accountability for that burden.

III. Conclusion

25. I firmly believe that, within the correct regulatory and policy framework, ESRs have the potential to transform the electricity industry by unlocking significant economic and market efficiency benefits. And I firmly support the efforts of the Storage Orders to

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[48] NARUC Request for Rehearing at 8.

[49] *Id.*

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promote the participation of ESRs in the wholesale markets. However, as I stated above, I read our jurisdictional authority differently than the majority, and I would have granted rehearing of Order No. 841 on the issues of jurisdiction and exercising the Commission's discretion to include an opt-out provision for states related to ESRs located behind-the-meter or connected to distribution facilities.

For these reasons, I respectfully concur in part and dissent in part.

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Bernard L. McNamee
Commissioner