

DISCUSSION DRAFT ON ACCOUNTABILITY AND
DEPARTMENT OF ENERGY PERSPECTIVES ON
TITLE IV: ENERGY EFFICIENCY

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

JUNE 3 & 4, 2015

Serial No. 114-50



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

U.S. GOVERNMENT PUBLISHING OFFICE

97-417 PDF

WASHINGTON : 2015

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON ENERGY AND COMMERCE

FRED UPTON, Michigan

Chairman

JOE BARTON, Texas

Chairman Emeritus

ED WHITFIELD, Kentucky

JOHN SHIMKUS, Illinois

JOSEPH R. PITTS, Pennsylvania

GREG WALDEN, Oregon

TIM MURPHY, Pennsylvania

MICHAEL C. BURGESS, Texas

MARSHA BLACKBURN, Tennessee

Vice Chairman

STEVE SCALISE, Louisiana

ROBERT E. LATTA, Ohio

CATHY McMORRIS RODGERS, Washington

GREGG HARPER, Mississippi

LEONARD LANCE, New Jersey

BRETT GUTHRIE, Kentucky

PETE OLSON, Texas

DAVID B. MCKINLEY, West Virginia

MIKE POMPEO, Kansas

ADAM KINZINGER, Illinois

H. MORGAN GRIFFITH, Virginia

GUS M. BILIRAKIS, Florida

BILL JOHNSON, Ohio

BILLY LONG, Missouri

RENEE L. ELLMERS, North Carolina

LARRY BUCSHON, Indiana

BILL FLORES, Texas

SUSAN W. BROOKS, Indiana

MARKWAYNE MULLIN, Oklahoma

RICHARD HUDSON, North Carolina

CHRIS COLLINS, New York

KEVIN CRAMER, North Dakota

FRANK PALLONE, JR., New Jersey

Ranking Member

BOBBY L. RUSH, Illinois

ANNA G. ESHOO, California

ELIOT L. ENGEL, New York

GENE GREEN, Texas

DIANA DeGETTE, Colorado

LOIS CAPPS, California

MICHAEL F. DOYLE, Pennsylvania

JANICE D. SCHAKOWSKY, Illinois

G.K. BUTTERFIELD, North Carolina

DORIS O. MATSUI, California

KATHY CASTOR, Florida

JOHN P. SARBANES, Maryland

JERRY McNERNEY, California

PETER WELCH, Vermont

BEN RAY LUJAN, New Mexico

PAUL TONKO, New York

JOHN A. YARMUTH, Kentucky

YVETTE D. CLARKE, New York

DAVID LOEBSACK, Iowa

KURT SCHRADER, Oregon

JOSEPH P. KENNEDY, III, Massachusetts

TONY CARDENAS, California

SUBCOMMITTEE ON ENERGY AND POWER

ED WHITFIELD, Kentucky

Chairman

PETE OLSON, Texas

Vice Chairman

JOHN SHIMKUS, Illinois

JOSEPH R. PITTS, Pennsylvania

ROBERT E. LATTA, Ohio

GREGG HARPER, Vice Chairman

DAVID B. MCKINLEY, West Virginia

MIKE POMPEO, Kansas

ADAM KINZINGER, Illinois

H. MORGAN GRIFFITH, Virginia

BILL JOHNSON, Ohio

BILLY LONG, Missouri

RENEE L. ELLMERS, North Carolina

BILL FLORES, Texas

MARKWAYNE MULLIN, Oklahoma

RICHARD HUDSON, North Carolina

JOE BARTON, Texas

FRED UPTON, Michigan (*ex officio*)

BOBBY L. RUSH, Illinois

Ranking Member

JERRY McNERNEY, California

PAUL TONKO, New York

ELIOT L. ENGEL, New York

GENE GREEN, Texas

LOIS CAPPS, California

MICHAEL F. DOYLE, Pennsylvania

KATHY CASTOR, Florida

JOHN P. SARBANES, Maryland

PETER WELCH, Vermont

JOHN A. YARMUTH, Kentucky

DAVID LOEBSACK, Iowa

FRANK PALLONE, JR., New Jersey (*ex officio*)

C O N T E N T S

JUNE 3, 2015

	Page
Hon. Ed Whitfield, a Representative in Congress from the Commonwealth of Kentucky, opening statement	1
Prepared statement	2
Hon. Frank Pallone, Jr., a Representative in Congress from the State of New Jersey, opening statement	4
Prepared statement	5
Hon. Bobby L. Rush, a Representative in Congress from the State of Illinois, opening statement	6
Hon. Fred Upton, a Representative in Congress from the State of Michigan, prepared statement	78

WITNESSES

Kathleen Hogan, Deputy Assistant Secretary for Energy Efficiency, Office of Energy Efficiency and Renewable Energy, Department of Energy	7
Prepared statement	10
Additional information for the record	58
Additional information for the record	69
Additional information for the record	72
J. Arnold Quinn, Director, Office of Energy Policy and Innovation, Federal Energy Regulatory Commission	23
Prepared statement	25
Larry R. Parkinson, Director, Office of Enforcement, Federal Energy Regulatory Commission	34
Prepared statement	37

SUBMITTED MATERIAL

Discussion draft, Title IV: Energy Efficiency and Accountability, Subtitle A—Energy Efficiency, submitted by Mr. Whitfield ¹	
Discussion draft, Title IV: Energy Efficiency and Accountability, Subtitle B—Accountability, submitted by Mr. Whitfield	80

JUNE 4, 2015

WITNESSES

Susan N. Kelly, President and Chief Executive Officer, American Public Power Association	90
Prepared statement ²	

¹The information has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/BILLS-114pih-SubtitleA-EnergyEfficiency.pdf>.

²Ms. Kelly's statement has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/HHRG-114-IF03-Wstate-KellyS-20150603.pdf>.

IV

	Page
John E. Shelk, President and Chief Executive Officer, Electric Power Supply Association	92
Prepared statement	94
Peter Galbraith Kelly, Jr., Senior Vice President, External Affairs, Competitive Power Ventures	111
Prepared statement	113
Christopher Cook, President and General Counsel, Solar Grid Storage LLC	122
Prepared statement	124
Jonathan M. Weisgall, Vice President, Legislative and Regulatory Affairs, Berkshire Hathaway Energy	134
Prepared statement ³	
William S. Scherman, Partner, Gibson, Dunn & Crutcher LLP	135
Prepared statement ⁴	

³Mr. Weisgall's statement has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/HHRG-114-IF03-Wstate-WeisgallJ-20150603.pdf>.

⁴Mr. Scherman's statement has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/HHRG-114-IF03-Wstate-SchermanW-20150603.pdf>.

**DISCUSSION DRAFT ON ACCOUNTABILITY
AND DEPARTMENT OF ENERGY PERSPEC-
TIVES ON TITLE IV: ENERGY EFFICIENCY—
DAY 1**

WEDNESDAY, JUNE 3, 2015

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

The subcommittee met, pursuant to call, at 2:45 p.m., in room 2322, Rayburn House Office Building, Hon. Ed Whitfield (chairman of the subcommittee) presiding.

Members present: Representatives Whitfield, Olson, Shimkus, Pitts, Latta, McKinley, Kinzinger, Griffith, Johnson, Ellmers, Flores, Mullin, Hudson, Rush, McNerney, Tonko, Green, Castor, Welch, and Pallone (ex officio).

Staff present: Nick Abraham, Legislative Associate, Energy and Power; Will Batson, Legislative Clerk; Leighton Brown, Press Assistant; Patrick Currier, Counsel, Energy and Power; Tom Hassenboehler, Chief Counsel, Energy and Power; A.T. Johnston, Senior Policy Adviser; Dan Schneider, Press Secretary; Caitlin Haberman, Democratic Professional Staff Member; Rick Kessler, Democratic Senior Advisor and Staff Director, Energy and Environment; John Marshall, Democratic Policy Coordinator; and Tim Robinson, Democratic Chief Counsel.

Mr. WHITFIELD. I would like to call the hearing to order, and I want to apologize, initially, to our wonderful panel of witnesses that because of these votes which were unexpected, we were delayed. So, I do apologize to you all, but we do thank you for being with us. Today we are having a continued hearing on our discussion draft on accountability in the Department of Energy, and today we are going to be focused on perspectives on Title IV, the energy efficiency provisions. I would like to recognize myself for 5 minutes for an opening statement.

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

We begin with our draft provisions on accountability, especially as it relates to the Nation's electricity system. The 2005 energy bill expanded FERC enforcement authority over electricity markets, and we have now had 10 years of experience with the implementation of those provisions. Many have raised concerns about the ac-

tion of FERC's Office of Enforcement, particularly regarding fairness, consistency, transparency, and due process. Some have even questioned whether FERC enforcement actions are counter-productive and actually impede the proper functioning of electricity markets.

The discussion draft would establish, as many of you know, an Office of Compliance Assistance at FERC to address these concerns. In addition, FERC order 2000 advanced the formation of RTOs and independent system operators. That is now 15 years old. This provision sought to promote efficiency in the wholesale electricity markets and to ensure that electricity consumers pay the lowest possible rate for reliable service. However, much has changed since this order first came out, and many market participants are calling for reforms ranging from price formation, to governance and transparency, as well as generation performance assurance.

FERC has yet to develop effective reforms to ensure fair, transparent, and well-functioning competitive markets. They have done a good job at that, or at least trying to. This discussion draft seeks to fill the void with several proposed criteria intended to improve the wholesale electricity markets.

Finally, PURPA was enacted to promote electric conservation efficiency and equitable pricing of wholesale electric energy. Like so many other 1970s-era energy policies still in place, many of PURPA's provisions are also a little bit out of date. In particular, Section 210 incentivized cogeneration and small power production by conferring certain advantages on qualifying facilities, but increasingly competitive wholesale electricity markets have made it inefficient and uneconomic for electric utilities to comply.

Reforms to this section were made in the 2005 energy bill, but several market participants and public utility commissioners have raised concerns that Section 210 still has adverse effects. The discussion draft will include measures to address those shortcomings as well.

With regard to energy efficiency, we held a hearing in April on nongovernmental perspectives, so today we are focusing on the Department of Energy's point of view. Now I might say that manufacturers have worked closely with the Department of Energy in trying to obtain additional efficiency in a lot of appliances and a lot of other products. But that hearing in April really pointed out that price increases, because of these efficiency mandates and very small efficiency accomplishments or advantages was really hurting the consumer, and the manufacturers were really expressing great concern about that.

So, obviously, we all want more efficiency, but we don't want the consumers to be hurt unjustly for very minute and small efficiency advantages. So that is something that we look forward to talking to you all about, as well as further considering.

So, I look forward to your testimony and the opportunity to ask questions.

[The prepared statement of Mr. Whitfield follows:]

PREPARED STATEMENT OF HON. ED WHITFIELD

This afternoon we continue work on our bipartisan energy bill. I believe that we are finding areas of agreement on ways to improve the Nation's energy policy. Today, we look at accountability and energy efficiency, and I welcome our Government witnesses before us today and our non-Government witnesses who we will hear from tomorrow.

We begin with our draft provisions on accountability, especially as it relates to the Nation's electricity system. The 2005 energy bill expanded FERC enforcement authority over electricity markets, and we now have 10 years of experience with the implementation of these provisions. Many have raised concerns about the actions of FERC's Office of Enforcement, particularly regarding fairness, consistency, transparency, and due process. Some have even questioned whether FERC enforcement actions are counterproductive and actually impede the proper functioning of electricity markets. The discussion draft would establish an Office of Compliance Assistance at FERC to address these concerns, and also includes provisions to improve transparency in FERC investigations.

In addition, FERC Order No. 2000, which advanced the formation of Regional Transmission Organizations and Independent System Operators, is now 15 years old. This provision sought "to promote efficiency in wholesale electricity markets and to ensure that electricity consumers pay the lowest price possible for reliable service." However, much has changed since this order first came out, and many market participants are calling for reforms ranging from price formation to governance and transparency to generation performance assurance. Nonetheless, FERC has yet to develop effective reforms to ensure fair, transparent, and well-functioning competitive markets. The discussion draft seeks to fill the void with several proposed criteria intended to improve for wholesale electricity markets.

Finally, the Public Utility Regulatory Policies Act of 1978 (PURPA) was enacted to promote electric conservation, efficiency and equitable pricing of wholesale electric energy. Like so many other 1970s-era energy policies still in place, many of PURPA's provisions are out of date. In particular, section 210 incentivized cogeneration and small power production by conferring certain advantages on qualifying facilities, but increasingly competitive wholesale electricity markets have made it inefficient and uneconomic for electric utilities to comply. Reforms to this section were made in the 2005 energy bill, but several market participants and State public utility commissions have raised concerns that section 210 still has adverse effects such as impairing the development of cost-effective, competitive, renewable energy and forcing ratepayers to pay for unneeded generation or energy that is well above market price. The discussion draft includes measures to address these shortcomings.

With regard to energy efficiency provisions in the energy bill, we held a hearing in April on nongovernmental perspectives, so today we focus on the Department of Energy's point of view. Many of these provisions deal with ways the Federal Government can reduce its energy consumption, such as helping to expand the use of energy savings performance contracts for Federal facilities. There are also requirements for DOE to look into potential energy savings at Federal data centers and through the use of thermal insulation, as well as other ideas to reduce Federal energy expenditures. It also eliminates the potentially costly and unrealistic requirement from the 2007 energy bill that Federal buildings use no fossil fuel generated energy by 2030.

The draft bill also contains measures affecting the private sector, including increased legal certainty for the Energy Star program, the inclusion of Smart Grid capability on Energy Guide labels, and voluntary verification programs for several appliances. It also clarifies DOE's role in setting model building codes. Finally, it suspends a proposed residential furnace efficiency standard, probably the most controversial of the dozens of such appliance standards promulgated in recent years, until the agency gathers more evidence on whether it is technically feasible and economically justified.

I look forward to a constructive discussion of these and related topics as we make progress on our energy bill.

Mr. WHITFIELD. At this time I would like to recognize the gentleman from New Jersey, Mr. Pallone, for a 5-minute opening statement.

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

Mr. PALLONE. Thank you, Chairman Whitfield. I understand that this hearing is the last of its kind on the majority's Architecture of Abundance discussion draft legislation. As we begin wrapping up these legislative hearings, I want to commend you and Chairman Upton. Regardless of whether I agree or disagree with all the policies put forth, the chairman and majority staff deserve credit for putting forward these many proposals and for working with us to put together these legislative hearings.

We continue to want to work with you to try to construct energy legislation that can garner support from a majority of each of our caucuses. While I believe it is possible to get there, it is important to note that we have a long way to go. I have already voiced my opposition to the efficiency draft, because I believe that in its current form it would actually result in a net increase in energy consumption. But I am glad we finally get to hear DOE's views on the language today.

The accountability title that is the primary topic before both today's and tomorrow's panels includes proposals that range from the relatively innocuous to the absolutely disastrous. In particular, I am strongly opposed to the section regarding FERC investigations, which, to me, defies all logic by casting market manipulation, big banks, and hedge funds as victims while handcuffing FERC investigators tasked with protecting energy ratepayers. The provision asks us to believe that JPMorgan Chase, which agreed to a \$410 million settlement in 2013 is really a victim rather than the California ratepayers who were defrauded. It wants us to be concerned about just and reasonable treatment for FERC enforcement order subjects like Barclays Bank and the Powhatan Energy Fund rather than preventing market manipulation to ensure just and reasonable rates for consumers of electricity, a regulated commodity.

I don't understand the majority's rationale, but I do know that its enactment would undermine confidence in the fairness of energy markets and ultimately the ability of those markets to function at all. It is clear from the inclusion of a market reform section in the draft that the majority already has concerns with the functioning of the regional electricity markets. What is not clear is exactly what problems the language is attempting to solve or whether it would solve them.

Nonetheless, I look forward to hearing from our expert witnesses with extremely divergent views of electricity markets. This is a complex but critical issue that should be the subject of multiple oversight hearings and vigorous debate.

Another matter that the committee should examine more closely before legislating is implementation of PURPA, Section 210, which laid the early groundwork for wholesale electricity competition and the growth of renewable energy. Ten years ago, this committee and Congress significantly reformed the law to essentially say that if FERC found that fair and robust competition existed in a given region, then utilities within that region no longer had to sign mandatory power purchase agreements with qualifying facilities, and that reform seems to have worked. Perhaps there are tweaks to be

made, and I am willing to address demonstrated problems. However, the discussion draft goes way too far by essentially deeming competition to exist even where it doesn't, completely flipping the burden of proof and undoing the simple, fair, and elegant agreement we enacted in EPACT 2005.

In closing, I hope that we will take the time to try to work through these issues and not rush to meet some arbitrary deadline. While nothing is ever guaranteed, I think it is possible that working together, we can move from the architectural phase to the construction of broadly bipartisan energy legislation that could be enacted before the end of this Congress. Thank you, Mr. Chairman. [The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

Thank you Chairman Whitfield and Ranking Member Rush for holding this hearing, which I understand to be the last of its kind on the Majority's Architecture of Abundance discussion draft legislation.

As we begin wrapping up these legislative hearings, I want to commend Chairman Whitfield and Chairman Upton. Regardless of whether I agree or disagree with all of the policies put forth, the chairmen and majority staff deserve credit for putting forward these many proposals and for working with us to put together these legislative hearings. We continue to want to work with you to try to construct energy legislation that can garner support from a majority of each of our caucuses.

While I believe it is possible to get there, it's important to note that we clearly have a long way to go. I have already voiced my opposition to the efficiency draft because I believe that, in its current form, it would actually result in a net increase in energy consumption, but I'm glad we'll finally get to hear DOE's views on the language today.

The "accountability" title that is the primary topic before both today's and tomorrow's panels includes proposals that range from the relatively innocuous to the absolutely disastrous.

In particular, I am strongly opposed to the section regarding FERC investigations which to me defies all logic by casting market-manipulating big banks and hedge funds as victims, while handcuffing FERC investigators tasked with protecting energy ratepayers.

The provision asks us to believe that JP Morgan Chase—which agreed to a \$410 million settlement in 2013—is really a victim, rather than the California ratepayers who were defrauded. It wants us to be concerned about "just and reasonable" treatment for FERC enforcement order subjects like Barclays Bank and the Powhatan Energy Fund, rather than preventing market manipulation to ensure "just and reasonable" rates for consumers of electricity, a regulated commodity. I don't understand the Majority's rationale, but I do know that its enactment would undermine confidence in the fairness of energy markets and, ultimately, the ability of those markets to function at all.

It's clear from the inclusion of a "Market Reforms" section in the draft that the majority already has concerns with the functioning of the regional electricity markets. What's not clear is exactly what problems the language is attempting to solve or whether it would solve them. Nonetheless, I look forward to hearing from our expert witnesses with extremely divergent views of electricity markets. This is a complex but critical issue that should be the subject of multiple oversight hearings and vigorous debate.

Another matter that the committee should examine more closely before legislating is implementation of PURPA Section 210, which laid the early groundwork for wholesale electricity competition and the growth of renewable energy. Ten years ago, this committee and Congress significantly reformed the law to essentially say that if FERC found that fair and robust competition existed in a given region, then utilities within that region no longer had to sign mandatory power purchase agreements with qualifying facilities. That reform seems to have worked. Perhaps there are tweaks to be made and I am willing to address demonstrated problems. However, the discussion draft goes way too far by essentially deeming competition to exist even where it doesn't, completely flipping the burden of proof and undoing the simple, fair and elegant agreement we enacted in EPACT 05.

In closing, I hope that we will take the time to try to work through these issues and not rush to some meet some arbitrary deadline. While nothing is ever guaran-

teed, I think it is possible that, working together, we can move from the architectural phase to the construction of broadly bipartisan energy legislation that could be enacted before the end of this Congress. Thank you.

Mr. PALLONE. Would you like me to yield to you? I yield to the gentleman from California, Mr. McNerney.

Mr. MCNERNEY. Thank you. And I just want to say a few things about the accountability section. I appreciate the thought that went into it, but there are some things that seem counterintuitive. For example, Section 4221 seems to be counter to what Republicans might want in terms of reducing regulatory burden, so I am kind of wondering what brought that about.

And on the section of 4212, California went through Enron manipulations in the year 2000, and we went about \$9 billion in debt. Undoing the constraints that were put into place following that episode are mysterious to me why we would want to move forward in that direction. 4221, it would be good to have some clear understanding of what that section is trying to accomplish because it is not clear from what we have seen so far.

So with that, I am just asking the chairman to consider working with us on improving these so that we have something we both can support. I yield back.

Mr. WHITFIELD. The gentleman yields back. Is there anyone on our side of the aisle that wants to make a comment? If not, at this point, I would like to recognize Mr. Rush for his 5-minute opening statement.

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

Mr. RUSH. Thank you, Mr. Chairman, for holding the hearing today. This hearing, as has been stated before, is on energy efficiency standards and FERC accountability. I commend you for allowing members the opportunity to hear from DOE on the energy efficiency title of the discussion draft following the April 30 hearing when we also heard from energy stakeholders. In particular today, Mr. Chairman, I am looking forward to engaging Deputy Assistant Secretary Hogan on the pending final DOE rule updating efficiency standards for nonweatherized gas furnaces and mobile home furnaces. This is an issue that has gotten a lot of attention, and we have heard competing arguments on how this rule would impact low-income families and renters.

Mr. Chairman, I am pleased in hearing from the agency itself on the rationale behind promoting this rule as well as the impact it expects this rule to have on consumers and on the environment. Mr. Chairman, I am also looking forward to engaging FERC on the accountability title of the discussion draft and getting feedback on how these provisions, as currently drafted, would impact the agency's work. Specifically, I am interested in getting more insight from the agency regarding Section 4211, which would create a new Office of Compliance Assistance with 10 full-time employees and a Commission-appointed Director, but does not include any additional funding.

The responsibilities that this new office will be tasked with, including making recommendations regarding consumer protections, market integrity, and consistent compliance of rules and orders

seems comparable to the Office of Public Participation that was previously authorized under Section 319 of the Federal Power Act.

Similarly, that office, too, was never funded and duties from that office have since been dispersed throughout other offices within the agency.

Mr. Chairman, we need to make sure that this new unfunded office mandated in Section 4211 will not have the unintended consequence of unnecessarily pulling staff from their current duties to perform tasks that are duplicative in nature.

I also have serious concerns over Section 4212 and what impact this legislation would have any investigatory process. Section 4212 takes the unprecedented step of applying the Brady rule of disclosing any evidence favorable to an investigative phase among FERC enforcement effort rather than the adjudication or trial phase of a case. I am also concerned that Section 4212, which imposes an extremely burdensome requirement that all communications between the FERC staff be carried out in writing and made part of the record, which would negatively affect the agency's enforcement efforts.

Mr. Chairman, this section would take the unprecedented and particularly harmful step of giving subjects who are being investigated equal weight to the Commission's own staff with regard to communicating directly with Commissioners during an investigation.

So Mr. Chairman, the accountability title we have before us would make significant changes on how the Commission conducts its business, and I look forward to hearing from agency officials on how their work would be impacted. With that, I yield back.

Mr. WHITFIELD. The gentleman yields back, and thank you very much for those statements. At this time I would like to introduce our panel of witnesses, and I am just going to introduce you as I introduce you to make your statement.

So the first one is Dr. Kathleen Hogan, who is a Deputy Assistant Secretary for Energy Efficiency at the Department of Energy. And we appreciate your being with us. Sorry again for the delay, and you are recognized for 5 minutes for your opening statement.

STATEMENTS OF KATHLEEN HOGAN, DEPUTY ASSISTANT SECRETARY FOR ENERGY EFFICIENCY, OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY, DEPARTMENT OF ENERGY; J. ARNOLD QUINN, DIRECTOR, OFFICE OF ENERGY POLICY AND INNOVATION, FEDERAL ENERGY REGULATORY COMMISSION; AND LARRY R. PARKINSON, DIRECTOR, OFFICE OF ENFORCEMENT, FEDERAL ENERGY REGULATORY COMMISSION

STATEMENT OF KATHLEEN HOGAN

Ms. HOGAN. Terrific. And good afternoon, Chairman Upton, Ranking Member Pallone, Chairman Whitfield, Ranking Member Rush, and members of the subcommittee. Thank you for the opportunity to testify today on behalf of the Department of Energy's Office of Energy Efficiency and Renewable Energy, also known as EERE. As Deputy Assistant Secretary for Energy Efficiency at EERE, I oversee DOE's energy efficiency portfolio across buildings,

advanced manufacturing, Federal energy management, weatherization, and intergovernmental programs. These efforts develop and help provide businesses, consumers, government agencies, with innovative, cost-effective, energy saving solutions to improve their energy efficiency, from high efficiency products, to new ways of designing homes and buildings, to new ways of improving the energy intensity and competitiveness of American manufacturers.

Energy efficiency is a large low-cost and underutilized U.S. energy resource. Increased energy efficiency offers savings on energy bills, opportunities for more jobs, and improved industrial competitiveness, and lower air pollution. So, indeed, I am pleased to be here today and look forward to working with Congress and this committee in particular on how we can better use energy efficiency to help address our Nation's energy challenges.

I have been asked to testify today on the energy efficiency provisions contained within Title IV, Energy Efficiency, currently before the committee. While the administration is still reviewing this bill, we support the ongoing bipartisan efforts to promote energy efficiency and look forward to continuing to work with the committee and the range of bill sponsors.

The administration strongly supports the goal of improving energy efficiency, and is making real progress in helping cut energy waste, save money, and improve energy productivity. For example, the Department is on track to set energy efficiency standards under existing authority, which will help save billions of dollars in coming years. We are making important progress helping States understand the energy savings achieved through building codes and realize the benefits that building codes offer, and we are engaged with hundreds of organizations of all kinds showing how to cut energy costs by 20 percent or more. In addition, the recent release of the executive order 13693 will advance the energy efficiency and sustainability of the Federal Government, the Nation's largest consumer of energy, and the Federal Government is half-way to meeting a \$4 billion performance contracting goal by 2016.

The Department does have a number of concerns with the proposed language in Title IV that we believe undermines the Department's efforts to help cut energy waste, including its ability to effectively set product efficiency standards and the ability to help keep model energy codes up to date and help States understand and benefit from building codes.

However, I do want to reiterate my appreciation for ongoing bipartisan efforts to promote energy efficiency, including this year's passage of the Energy Efficiency Improvement Act, and look forward to continuing to work with the committee. Generally the efficiency title addresses many important aspects of energy efficiency, including but not limited to, Federal use of energy savings performance contracts and utility energy savings contracts, energy efficiency for commercial and residential buildings, which, as we all know, consume more than 40 percent of the Nation's total energy and more than 73 percent of its electrical energy, and represent opportunities for significant savings, as well as appliance energy efficiency standards, which do have the opportunity to provide an estimated \$1.8 trillion in savings through 2030.

So EERE's program offices are implementing strategies similar to the activities highlighted in the legislation before the committee today, and I am proud to report that with Congress' support, EERE is making headway in helping reducing U.S. reliance on oil, saving American families and businesses money, and reducing pollution.

So, again, I thank you for the opportunity to speak today and will look forward to answering any questions.

[The prepared statement of Ms. Hogan follows:]

Statement of

Dr. Kathleen Hogan

Deputy Assistant Secretary for Energy Efficiency
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy

Before the

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

June 3, 2015

Introduction

Chairman Upton, Ranking Member Pallone, Chairman Whitfield, Ranking Member Rush, and Members of the Subcommittee, thank you for the opportunity to testify today on behalf of the Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) regarding energy efficiency.

In support of the Administration's all-of-the-above approach to energy and the Climate Action Plan, EERE leads DOE efforts as the U.S. Government's primary clean energy and energy efficiency technology organization—working with some of the Nation's best innovators and businesses to support high-impact applied research, development, and demonstration (RD&D) activities in the three sectors under our purview: sustainable transportation, renewable power, and energy efficiency. With Congress's support, we implement a range of strategies aimed at reducing U.S. reliance on oil, saving American families and businesses money, creating jobs, and reducing pollution. We work to ensure that the clean energy and energy efficiency technologies of today and tomorrow are invented and manufactured in America.

As Deputy Assistant Secretary for Energy Efficiency in the Office of Energy Efficiency and Renewable Energy (EERE), I am responsible for overseeing DOE's portfolio of energy efficiency research, development, demonstration, and deployment activities. The Building Technologies, Advanced Manufacturing, Weatherization and Intergovernmental Programs, and Federal Energy Management Program Offices develop and help provide businesses, consumers, and government agencies with innovative, cost-effective energy-saving solutions to improve their energy efficiency—from higher-efficiency products, to new ways of designing homes and buildings, to new ways of improving the energy intensity and competitiveness of American manufacturers. EERE's energy efficiency portfolio also supports better integrating the built environment with our energy system to combat costly peaks in energy demand and to increase the capabilities and value of buildings and facilities.

Energy efficiency is a large, low-cost, and underutilized U.S. energy resource. Increased energy efficiency offers savings on energy bills, opportunities for more jobs, and improved industrial competitiveness, and it will lower air pollution. I am pleased to be here today and look forward to working with Congress, and this Committee in particular, to talk about how we can use energy efficiency as a tool to help address our Nation's energy challenges. My statement today will address the energy efficiency bills currently before the Committee, and provide an update on DOE's energy efficiency portfolio, the challenges we are working to address, and the progress we are making.

Energy Efficiency Legislation

I have been asked to testify on the energy efficiency provisions contained within Title IV—“Energy Efficiency” currently before the Committee.

The Administration continues to review all of the legislation on the docket today, and has not formulated a position on the efficiency provisions contained within Title IV.

The Administration strongly supports the goal of improving energy efficiency and continues to implement programs and initiatives that align with the President's Climate Action Plan. For example, the Department is on track to set efficiency standards as outlined under existing authority, which drive progress toward reducing carbon pollution by at least 3 billion metric tons cumulatively by 2030. In addition, the recent release of Executive Order 13693 will advance the energy efficiency and sustainability of the federal government—the nation's largest consumer of energy. The Department has a number of concerns with language that we believe undermines critical components of the President's Climate Action Plan, including its ability to effectively set efficiency standards. In addition, we have concerns with the proposed building energy codes provisions.

However, I will reiterate my appreciation for ongoing bipartisan efforts to promote energy efficiency—including this year's passage of the Energy Efficiency Improvement Act—and look forward to continuing to work with the Committee.

EERE's Energy Efficiency Portfolio

EERE's program offices are implementing a variety of strategies to improve the efficiency of our homes, buildings and manufacturers, similar to the activities highlighted in the legislation before the Committee today.

Building Technologies

Improving energy efficiency in our homes and buildings offers a tremendous opportunity to create well-paying jobs, save money for businesses and consumers, and make our air cleaner. Residential and commercial buildings consume more than 40 percent of the Nation's total energy and more than 73 percent of its electrical energy¹, resulting in an estimated annual national buildings energy bill of more than \$430 billion.² This energy bill can be reduced by 20-50 percent through a variety of existing and emerging building energy efficiency technologies and techniques once these solutions are successfully developed, commercialized, and proven to be cost effective.

EERE's Building Technologies Program (BTO) will continue to develop and demonstrate advanced building efficiency technologies and practices to make buildings in the U.S. more efficient, affordable, and comfortable. Key recent EERE accomplishments in BTO include the following:

¹ Monthly Energy Review, Energy Information Administration, U.S. Department of Energy, November 2014, <http://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf>.

² Annual Energy Outlook, Energy Information Administration, U.S. Department of Energy, April 2014, [http://www.eia.gov/forecasts/aeo/pdf/0383\(2014\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2014).pdf).

- **Helping American commercial, industrial, and multifamily buildings become at least 20 percent more energy efficient by 2020.** Through the Better Buildings Challenge, more than 250 partners are achieving average energy savings of 2.5% annually. These partners are on track to achieve the goal of more than 20% energy savings over 10 years and have saved 36 trillion Btus and \$300 million since the Challenge began in 2011.
- **Curbing greenhouse gas emissions with advanced refrigeration systems.** Through the Building Technologies Office's Emerging Technologies R&D program, a leading commercial refrigeration manufacturer worked with Oak Ridge National Laboratory to design a refrigeration system with 25% lower energy consumption and 78% lower GHG emissions than existing systems.
- **Providing consumers billions of dollars in energy savings.** As part of President Obama's Climate Action Plan, the Energy Department finalized ten energy efficiency standards in 2014. Altogether, those ten standards will help reduce carbon dioxide emissions by over 435 million metric tons, which is roughly the equivalent to the annual electricity use of 60 million homes,³ and save American families and businesses \$78 billion in utility bills through 2030.

The program uses a three-pronged strategy: (1) High Impact Technology Research and Development—research and development (R&D) targeting the greatest opportunities to develop high-impact new cost-effective energy efficiency products and solutions (i.e., the highest potential market and energy efficiency impact); (2) Technology-to-Market—validating and driving these technology products and solutions into the market by verifying and improving performance and cost, providing improved data and information, and partnering with manufacturers and users; and (3) Lock In Savings—where a government role is appropriate and justified, locking in the savings through market based (e.g., working with the Environmental Protection Agency on the ENERGY STAR Program) and regulatory (i.e., codes and standards) efforts that provide clear public and net economic benefits to both producers and consumers. The program invests in a balanced portfolio of activities that are determined to contribute optimally to national energy efficiency goals.

R&D on next-generation building technologies will lead to advances in end-uses representing the majority of building energy consumption, including efficient lighting that is cost-competitive in today's market, new technologies in heating and cooling, and windows that decrease energy demands and improve comfort. DOE also invests in whole building R&D that demonstrates how new energy efficient technologies can function together to create an efficient system, achieve greater overall savings, and inspire the next-generation of buildings. For homes, this will translate

³ EPA Greenhouse Gas Equivalencies Calculator, <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>.

into a new generation of housing stock that is durable, uses smarter energy management systems, and offers substantial energy savings.

In addition to creating energy efficiency opportunities in the new buildings market, DOE invests in activities that target the large savings potential that exists across the stock of existing homes, many built before modern codes. Here, the Department is working to reduce U.S. building-related energy use in existing homes by 20 percent by 2020 and 40 percent by 2030 through applied research (e.g. how builder/retrofitters can more cost effectively install technical solutions into homes). This research aims to resolve the major technology to market challenges to achieving these goals, develop infrastructure to support the construction or improvement of homes to meet higher performance levels, and demonstrate and then promote higher energy efficiency home retrofit and model homes for new construction that may be implemented at the state and local level.

The Better Buildings Challenge is a signature partnership effort to make our Nation's buildings 20% more energy efficient over the next ten years, with over 250 partners across the commercial, industrial, residential, and public sectors. Together, these partners account for approximately 3.5 billion square feet of building floor space, more than 600 manufacturing facilities, and \$5.5 billion in private sector financing. As partners advance toward meeting their individual goals, the Better Buildings Challenge website⁴ will highlight their commitment and progress, including the sharing of showcase projects and hundreds of replicable implementation models that other organizations can adopt. To date, more than \$3 billion of the commitment from private sector financial firms has been extended to projects, and we are continuing to look for ways to expand access to private-sector financing, as this remains an important barrier cited by commercial building owners.

In addition, the Department sets minimum energy efficiency standards for approximately 60 categories of appliances and equipment used in homes, businesses, and other applications, as required by existing law. For most products, Congress passed laws that set initial federal energy efficiency standards and test procedures, and that established schedules for DOE to review and update these standards and test procedures. Since 2009, 25 new or updated standards, covering more than 30 products, have been issued and will ensure annual energy savings over the coming years. The Program is highly effective, achieving dramatic bang-for-the-buck in energy savings. Cumulative consumer utility bill savings associated with these recently enacted standards are projected to be hundreds of billions of dollars (undiscounted) through 2030.

Further, DOE assists with the adoption and implementation of state and local building codes for both commercial and residential buildings. Building energy codes are an existing solution that can provide between 20-30 percent whole building energy savings. The program assists states and

⁴ The BBC website address is www.betterbuildings.energy.gov/challenge.

localities in adopting, complying with, and enforcing energy codes for residential and commercial buildings, resulting in higher-performing buildings that maximize cost-effective energy savings. Pacific Northwest National Laboratory estimates the annual impact of these activities to be over 100 trillion Btu of primary energy savings and almost \$780 million in energy cost savings.⁵ To accomplish its objectives in this area, DOE has developed a suite of assistance tools it routinely provides to state and local authorities.

In FY2016, DOE has requested \$264,000,000 for the Building Technologies Office.

Advanced Manufacturing

The U.S. manufacturing sector offers important opportunities for cutting energy waste, while improving our industrial competitiveness and promoting economic growth. In the United States, manufacturing represents about 12% of the gross domestic product and nearly 12 million jobs.⁶ While being a key sector underlying long-term economic growth, manufacturing also has an annual energy bill of about \$200 billion and uses roughly one-third of the primary energy (and related GHG emissions) in the U.S.⁷ U.S. manufacturing can particularly benefit from technologies for energy efficiency across the board, as industry must continually improve productivity and efficiency to remain globally competitive.

EERE's Advanced Manufacturing Office (AMO) partners with industry, small business, universities, and other stakeholders to identify and invest in emerging technologies with the potential to create high-quality manufacturing jobs, enhance global competitiveness of the United States, and reduce energy use by encouraging a culture of continuous learning in corporate energy management. Key recent AMO accomplishments include:

- **Pushing the boundaries of additive manufacturing.** The EERE-supported Manufacturing Demonstration Facility (MDF) at Oak Ridge National Laboratory collaborated with private sector partners to design and prototype a 3D-printed car – all in just six months. This

⁵ Pacific Northwest National Laboratory, Codes and Standards: http://eere.pnnl.gov/building-technologies/codes_standards.stm

⁶ Full-time and Part-time employees by industry, U.S. Department of Commerce, <http://www.bea.gov/iTable/iTable.cfm?reqid=5&step=4&isuri=1&402=43&403=1#reqid=5&step=4&isuri=1&402=43&403=1>

Value added by industry as percentage of GDP, U.S. Department of Commerce, <http://www.bea.gov/iTable/iTable.cfm?reqid=5&step=4&isuri=1&402=5&403=1#reqid=5&step=4&isuri=1&402=5&403=1>

⁷ Annual Energy Outlook 2014: Reference Case Data, U.S. Energy Information Administration, available from: <http://www.eia.gov/forecasts/aeo/data.cfm>

project was enabled through a partnership between the MDF and industry stakeholders, which developed breakthrough additive manufacturing processes and allowed industry to print more efficiently and on a larger scale than similar commercially available processes.

- **Assuring supply chains of materials critical to clean energy technologies.** The Critical Materials Institute (CMI), an Energy Innovation Hub for the U.S. Department of Energy (DOE), celebrated its second anniversary with twenty-seven invention disclosures. Critical materials, including some rare earth elements that possess unique magnetic, catalytic, and luminescent properties, are key resources needed to manufacture products for the clean energy economy.
- **Saving manufacturers money across the U.S.** Industrial Assessment Centers located within accredited engineering programs at 24 universities across the country conduct energy audit assessments at manufacturers' sites. According to analyses done by the program, on average, each manufacturer identifies about \$140,000 in potential annual energy savings. Almost 17,000 manufacturers have benefited from the program and implemented savings resulting in approximately 5 million metric tons of carbon dioxide emission reductions⁸.

AMO's research, development, demonstration, and deployment investments advance high-impact technologies for energy efficiency in the manufacturing sector in addition to foundational, cross-cutting manufacturing and materials technologies critical to efficient and competitive domestic manufacturing of clean energy products. AMO's investments in foundational technologies are anticipated to have a high impact in helping save energy and improve competitiveness and that will benefit multiple industries in the installed industrial base. When R&D investments are approached in this manner, the extensive supply chains associated with manufacturing multiply the government's initial investments from one industry to multiple applications in other industries and end-use products.

The Program addresses these clean energy manufacturing challenges in three primary ways: research and development of early stage manufacturing technologies through the support of individual R&D projects, pre-commercial technology development through facilities and manufacturing consortia, and technology assistance through manufacturing partnership participation, assessment and evaluation tools.

EERE leads the Department of Energy's *Clean Energy Manufacturing Initiative* which is a Department-wide approach to increase U.S. competitiveness in clean energy manufacturing while advancing progress toward the nation's energy goals. EERE-supported Clean Energy Manufacturing

⁸ Internal analysis based on data from the Industrial Assessment Centers Database, <http://iac.rutgers.edu/database>

Innovation Institutes are public-private partnerships focusing on RD&D of foundational technologies that are broadly applicable and prevalent in multiple industries and markets within the energy sector and that have potentially transformational technical and productivity impacts for the U.S. manufacturing sector more broadly. All institutes will be actively managed through cooperative agreements with well-defined milestones, and oriented toward clearly stated research objectives and outcomes to ensure timely achievement of all technical, operational, organizational and partnership goals. Also, within 5 years of its launch, each institute is expected to be financially independent and sustainable using only non-Federal funds.

One example of the Department's efforts in this area includes our recently selected Institute for Advanced Composites Manufacturing Innovation, led by the University of Tennessee and headquartered in Knoxville, which already has 122 committed partners united toward the common goal of lowering overall costs for manufacturing advanced composites by 50 percent, reducing the energy use to do so by 75 percent, and increasing the ability to recycle composites by more than 95 percent. Advanced composites have the potential to deliver clean energy products with better performance and lower costs, such as lighter and longer wind turbines blades; high pressure tanks for natural gas- and hydrogen-fueled cars; lighter, highly energy-efficient industrial equipment; and lightweight vehicles.

In addition, the Department has released a Notice of Intent to issue a competitive solicitation in 2015 to fund a Clean Energy Manufacturing Innovation Institute focused on smart manufacturing. Smart manufacturing utilizes a suite of tools to enable real-time operational energy efficiency improvements in manufacturing ranging from unit processes to factory-wide integration to enterprise-wide energy management.

The Department also has active technical assistance programs aimed at reducing manufacturing energy intensity by 25% over ten years by engaging a diverse set of industry partners in effective business models, continuous improvement in energy efficiency, modeling key processes, and supporting standards and certifications for third-party services. One example is the 24 existing Industrial Assessment Centers (IACs), situated at universities with major engineering programs, which conduct energy efficiency, productivity improvement, and waste reduction assessments for small- and medium-sized manufacturer at no cost to them. DOE technical assistance also supports the achievement of the national goal set by President Obama of developing 40 gigawatts of new, cost-effective industrial combined heat and power by 2020. And, DOE provides tools to support improvements in a number of common systems in manufacturing facilities, including motor, steam, compressed air, and pumping systems.

In FY2016, DOE has requested \$404,000,000 for the Advanced Manufacturing Office.

Weatherization and Intergovernmental Programs

For decades, states have demonstrated leadership through their unique authorities to develop and implement energy efficiency and renewable energy policies and programs. State governments wield considerable influence in the building sector through upgraded building codes and incentives; in the utility sector through energy efficiency and renewable energy targets and customer programs; and in the industrial sector with policies that encourage energy efficiency through activities such as energy audits and combined heat and power.

EERE's Office of Weatherization and Intergovernmental Programs (WIP) partners with its national network of state and local organizations to significantly accelerate the deployment of energy efficiency and renewable energy technologies and practices by a wide range of government, community, and business stakeholders.

Key recent WIP accomplishments include:

- **Provided critical funding for states to weatherize homes.** In FY 2014 alone, EERE helped improve the energy performance and comfort in the homes of approximately 38,000 low-income American families across the Nation, resulting in an estimated 1.1 trillion Btu of first-year energy savings and \$16 million in first-year energy cost savings.
- **Maintained strict certification and auditing requirements to protect taxpayers.** In FY2014, WAP implemented national certifications and work specifications for residential retrofit worker training, energy audits and weatherization methods.

Included within the Office of Weatherization and Intergovernmental Programs are the Weatherization Assistance Program (WAP) and the State Energy Program (SEP).

The Weatherization Assistance Program provides funding through formula grants to increase the energy efficiency of dwellings owned or occupied by low-income persons, reduce their total residential energy expenditures, and improve their health and safety. Through retrofitting residential buildings, WAP activities reduce the cost of low-income household energy bills, which are significantly disproportionately higher relative to higher income households. Up to 40 million low-income households in the U.S. are eligible for low-income housing energy assistance. In FY2014, the Weatherization Assistance Program funding weatherized approximately 38,000 homes, exceeding its fiscal year goal of 24,600 homes retrofits for low income families by approximately 50 percent. The Weatherization Assistance Program also provides training and technical assistance to improve program effectiveness, service deliver, resource accountability, and operation efficiency.

Specifically, training and technical assistance funding supports the development and implementation of a variety of tools needed to implement work quality, training accreditation, and worker certification.

The State Energy Program assists states through competitive and formula funding in establishing and implementing energy efficiency and renewable energy plans, policies, and programs to reduce energy costs, increase competitiveness, enhance economic competitiveness, improve emergency planning, and improve the environment. States have purview over many of the policy and program levers that can catalyze greater investment in clean energy and help the country realize the suite of economic and environmental benefits associated with clean energy. The State Energy Program provides states with capacity building resources, technical assistance, and best practice sharing networks to facilitate the adoption of plans, policies, and programs that are appropriate based on state and regional circumstances.

In addition, the Local Energy Program, proposed as part of the Department's FY2016 Budget Request, is a new program that will provide support to local governments for energy planning, program development and implementation, analysis, and other related efforts through technical assistance and competitively awarded grants. Local energy efficiency policies, implemented at this scale, in a municipality, county or metropolitan area will lower energy costs, reduce greenhouse gas emissions, and support economic development goals. The objective of the Local Energy Program is to serve as a catalyst for developing creative and effective solutions through projects that improve local energy code implementation; expansion of energy upgrades in commercial buildings and residential buildings, upgrades to the energy efficiency of their own public facilities and operations; development of sustainable funding and financing resources.

In FY2016, DOE has requested \$318,499,000 for the Office of Weatherization and Intergovernmental Programs.

Federal Energy Management

The U.S. Federal government is the Nation's single largest user of energy and has both a tremendous opportunity and an acknowledged responsibility to lead by example in saving energy. Since 1975, the Federal Government has reduced its energy intensity by 46.2 percent, and 20.6 percent from 2003. Federal GHG emissions have also dropped 17.2 percent since 2008. Additionally, the Federal Government is credited with using 9.2 percent of its electricity from

renewable sources. Federal Agencies have also made progress on a number of other fronts, like reducing water use by 19 percent since 2007⁹.

A number of energy efficiency goals for the federal government were recently extended through 2025 by Executive Order 13693¹⁰ signed in March 2015. It set goals to cut the Federal Government's greenhouse gas (GHG) emissions by 40 percent below 2008 levels by 2025 – saving tax payers up to \$18 billion in avoided energy costs – and increase the share of electricity the Federal Government consumes from renewable sources to 30 percent. The new E.O. builds off of the strong progress the federal government has already made.

DOE plays a critical role in providing technical assistance to Federal agencies to increase understanding and accelerate cost-effective adoption of energy-saving technologies and strategies. DOE's Federal Energy Management Program (FEMP) has developed strategic programs to identify high impact opportunities with public-private sector partnerships as well as technical approaches to address critical barriers across the Federal Government.

FEMP activities contribute to reducing the energy intensity at Federal facilities, lowering their energy bills, and providing environmental benefits through:

- Interagency coordination to align interagency efforts surrounding Federal energy management planning and legislation compliance;
- Training federal agency managers about the latest energy requirements, best practices, and technologies;
- Reporting/tracking tools that provide centralized reporting, data collection, and strategic communication;
- Financial resources and technical assistance to increase Federal agencies' investments in energy efficiency, water conservation, and renewable energy; and
- Data Center Assistance to help agencies develop and implement data center efficiency projects through technical assistance, tools, and training that increase adaptation of measurement protocols, reporting mechanisms, and best practices.

Key recent FEMP accomplishments include:

⁹ White House Fact Sheet: Reducing Greenhouse Gas Emissions in the Federal Government and Across the Supply Chain. <https://www.whitehouse.gov/the-press-office/2015/03/19/fact-sheet-reducing-greenhouse-gas-emissions-federal-government-and-acro>

¹⁰ Executive Order 13693 is accessible at <https://www.whitehouse.gov/the-press-office/2015/03/19/executive-order-planning-federal-sustainability-next-decade>.

- **Federal Energy Efficiency Fund.** The First Federal Energy Efficiency Fund Solicitation in FY 2014 was awarded \$5 million to 9 projects worth a total investment of \$120 million in renewable energy and combined heat and power projects (a 24:1 leveraging ratio). Many of the projects are first-time projects for particular agencies, offering the potential of more in the future. The effort also brought forward a broad set of projects through which FEMP can provide other assistance to federal agencies.
- **New Better Buildings Challenge and Accelerator for Data Centers.** FEMP spearheaded a new Better Buildings Challenge and Accelerator for Data Centers announced in fall 2014, in coordination with EERE's Building Technologies Office. This Challenge has engaged federal agencies, national laboratories, and the private sector, including eBay and Staples, in efforts to greatly improve data center efficiency. Data center energy consumption is significant nationally and across the federal sector, and it can be reduced 20%–40% by applying best management energy efficiency measures and strategies typically with short returns on investment.

In December 2011, President Obama signed a Presidential Memorandum directing the Federal government to enter into a minimum of \$2 billion in performance-based contracts over the next two years for Federal building energy efficiency. In May of 2014, the president announced the expansion and extension of the President's Performance Contracting Challenge (PPCC) to \$4 billion by 2016. In FY 2016, DOE's Federal Energy Management Program will continue to support the PPCC by assisting agencies to successfully meet the \$4 billion goal, and helping agencies to continue their acceleration of using performance contracts to meet future energy investment needs and goals. FEMP will also share and rely on best practices from the PPCC to partner with other government and private sector stakeholders/partners to accelerate their use of performance contracts. As of April 15th, 2015, federal agencies have developed a pipeline of about \$4.81 billion in projects, which exceeds the \$3.97 billion commitment. Agencies are working with FEMP and as of April 15th, 2015, have awarded a total of 201 projects with an investment value of \$2.05 billion and an estimated pipeline of \$2.76 billion.

In FY2016, DOE has requested \$43,088,000 for the Federal Energy Management Program.

Conclusion

Through R&D, deployment, and collaborations at all levels of government and the private sector, the Department of Energy aims to capitalize on the opportunities that energy efficiency affords. The Department's efforts to lead in next-generation buildings and advanced manufacturing will result in a more secure, resilient, and competitive energy economy. While we are making progress, continued efforts are necessary to capture the full set of opportunities.

The Administration looks forward to continuing to work with the Congress on bipartisan legislation to support energy efficiency and boost U.S. competitiveness and job creation. From partnering with companies and businesses to reduce their energy bills through the Better Buildings Initiative, to Federal administrative actions to cut energy use across Federal facilities, the Department is committed to winning the future by catalyzing a homegrown, clean energy economy in the United States.

Thank you again for the opportunity to speak to this important issue, and I would be happy to answer any questions.

Mr. WHITFIELD. Thank you, Dr. Hogan. And our next witness is J. Arnold Quinn, who is the director, Office of Energy Policy and Innovation at the Federal Energy Regulatory Commission. Thank you very much for joining us, and you are recognized for 5 minutes.

STATEMENT OF J. ARNOLD QUINN

Mr. QUINN. Good afternoon, Chairman Whitfield, Ranking Member Rush, and members of the subcommittee. Thank you for the opportunity to appear before you today. My name is J. Arnold Quinn. I am the director of the Office of Energy Policy and Innovation at the Federal Energy Regulatory Commission. I am here today as a Commission staff witness, and my remarks do not necessarily represent the point of view of the Commission or any individual Commissioner. My testimony will focus on those parts of the discussion draft that require reporting and planning to improve the wholesale electricity markets, Section 4221, and establish an Office of Compliance Assistance, Section 4211.

The Commission is in the process of exploring many of the issues identified in the criteria articulated in Section 4211 of the discussion draft. Further Commission action on these or other criteria articulated in Section 4221 prior to the enactment of the Act may diminish the need for and the benefit of congressional direction for the RTOs and ISOs to address these issues. The process Section 4221 requires is somewhat similar to the process the Commission has used to develop new market rules as system needs evolve. Such a process allows each ISO and RTO and its stakeholders to describe whether and how current market rules address an identified concern or system need in a manner reflective of regional differences. If Congress directs the Commission to take action beyond what the Commission is currently pursuing, it would be useful to clarify that Section 4221 of the discussion draft would require a process that is consistent with the Commission's existing processes under Sections 205 and 206 of the Federal Power Act.

Further, the Commission prefers to focus on services and performance quality that the electric power system needs and establish market rules that ensure the cost effective provision of those services at the required level of performance. While the Commission recognizes the need to encourage an adequate supply of resources that provide operational characteristics that are responsive to system needs, some criteria in Section 4221 may impair the competitive actions of these markets to the ultimate detriment of consumers or may cause unnecessary conflicts between Federal and State regulatory efforts.

In light of the Commission's mission and existing practices, it appears that an Office of Compliance Assistance could create duplicative proceedings for consumers and regulatory entities. An office of compliance assistance within the Commission that is meant to be independent of the rest of the Commission staff, could undermine the current coordination amongst Commission program offices and impede the Commission's ability to fulfill its mission.

Finally, although Commission staff currently endeavors to provide timely guidance in response to requests for compliance matters, the information gathering and analysis necessary to provide

the compliance guidance makes doing so in real time challenging in virtually all circumstances.

The Commission is always looking for ways to improve efficiency, transparency, and competitiveness of the markets its regulates, but it is important to recognize the duplication of effort and the potential unintended consequences that could result from this proposed legislation. Thank you for inviting me to testify today on the discussion draft. I look forward to working with you in the future on these issues, and I am happy to answer any questions you may have.

[The prepared statement of Mr. Quinn follows:]

**Summary of Testimony of J. Arnold Quinn
Director, Office of Energy Policy and Innovation
Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives
June 3, 2015**

Summary

Chairman Whitfield, Ranking Member Rush, and Members of the Subcommittee, thank you for the opportunity to appear before you today. My testimony will focus on those parts of the Discussion Draft that require reporting and planning to improve wholesale electricity markets (Section 4221) and establish an Office of Compliance Assistance (Section 4211).

The Commission is in the process of exploring many of the issues identified in the criteria articulated in section 4221 of the Discussion Draft. Further Commission action on these or other criteria articulated in section 4221 of the Discussion Draft prior to the enactment of the Act may diminish the need for or benefit of Congressional direction for RTOs and ISOs to address those issues. The process Section 4221 requires is somewhat similar to the process the Commission has used to develop new market rules as system needs evolve. Such a process allows each ISO or RTO and its stakeholders to describe whether and how market rules address an identified concern or system need in a manner reflective of regional differences. If Congress directs the Commission to take action beyond what it is currently pursuing, it would be useful to clarify that Section 4221 of the Discussion Draft would require a process that is consistent with existing Commission processes under sections 205 and 206 of the Federal Power Act.

Further, the Commission prefers to focus on the services and performance quality that the electric power system needs and establish market rules that ensure the cost effective provision of those services at the required level of performance. While the Commission recognizes the need to encourage an adequate supply of resources that provide operational characteristics that are responsive to system needs, some criteria in section 4221 may unduly impair the competitive aspects of these markets, to the ultimate detriment of consumers, or may cause unnecessary conflicts between federal and state regulatory efforts.

In light of the Commission's mission and existing practices, it appears that Section 4211 could create duplicative proceedings for consumers and regulated entities. An Office of Compliance Assistance within the Commission that is meant to be independent from the rest of the Commission's staff could undermine the current coordination among Commission Offices and impede the Commission's ability to fulfill its mission. Finally, although Commission staff currently endeavors to provide timely guidance in response to inquiries on compliance matters, the information gathering and analysis necessary to provide the compliance guidance makes doing so in real-time challenging in virtually all circumstances.

The Commission is always looking for ways to improve the efficiency, transparency, and competitiveness of its markets, but it is important to recognize the duplication of effort and potential unintended consequences that could result from this proposed legislation.

**Testimony of J. Arnold Quinn
Director, Office of Energy Policy and Innovation
Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
Subcommittee on Energy and Power
United States House of Representatives
June 3, 2015**

Introduction

Thank you for this opportunity to appear before you to discuss the potential avenues to improve wholesale electricity markets and compliance with market rules. My name is J. Arnold Quinn. I am the Director of the Office of Energy Policy and Innovation at the Federal Energy Regulatory Commission (FERC or Commission). I am here today as a Commission staff witness, and my remarks do not necessarily represent the views of the Commission or any individual Commissioner.

My testimony will focus on those parts of the draft legislation that require reporting and planning to evaluate and improve wholesale electricity markets (Section 4221) and establish an Office of Compliance Assistance (Section 4211).

Background

The Federal Power Act requires the Commission to review market rules to ensure those rules are just and reasonable and not unduly discriminatory or preferential. Market rules have evolved over time to adjust to myriad changes and the electric power system needs that accompany those changes. We have seen significant changes in technology, relative fuel costs, load growth, and state and federal laws and regulations in the time since organized wholesale electricity markets were first started. These changes affect each region of the country differently and the Commission has endeavored to allow markets to evolve to address unique regional needs while taking generic action when it is warranted. As system needs evolve, the Commission has

consistently sought to establish market rules that transparently value service to meet system needs and allow all technologies and business models to compete on a level playing field.

Fostering competitive forces in a dynamic environment requires providing market participants with the means to manage the risk associated with their own decisions instead of requiring market operators to pick in advance specific technologies or resources to manage expected system needs. Congress has taken a number of steps to facilitate competition in wholesale electric markets. The Energy Policy Act of 1992 and the Energy Policy Act of 2005 promoted competition by lowering entry barriers and increasing transmission access. The Commission has stated that marketplace competition benefits energy consumers by encouraging diverse resources, spurring innovation and deployment of new technologies, improving operating performance, and exerting downward pressure on costs. In short, the Commission prefers to rely on competitive forces when reasonable, but recognizes that traditional regulatory requirements are sometimes necessary in wholesale electricity markets.

Evaluating and Improving Wholesale Electricity Markets

Section 4221 of the draft legislation would require the Commission to direct Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs) to provide a report to the Commission that details how and whether existing market rules address criteria articulated in the Discussion Draft. This section also requires the ISOs and RTOs to provide a specific action plan with an implementation timeline to adopt market rule changes to address any criteria not addressed by current market rules.

The Commission is in the process of exploring many of the issues identified in the criteria articulated in section 4221 of the Discussion Draft. For example, the Commission recently described its concerns regarding a broad set of issues with respect to generator access to sufficient fuel supplies and the firmness of generator fuel arrangements. The Commission

referred to this broad concept as “fuel assurance” and noted that it includes a range of generator-specific and system-wide issues, with recognition that certain issues may have a regional element to them. Similarly, the Commission and its staff have been engaged for more than a year in an effort to better understand price formation in organized wholesale energy markets. This effort has included four staff papers and three technical conferences that covered a wide range of issues and extensive interaction with a wide variety of industry stakeholders. Finally, the Commission has taken a number of actions over the last three years to address the need for better coordination between the natural gas and electric industry. To the extent the Commission takes further action on these or other criteria articulated in section 4221 of the Discussion Draft prior to the enactment of the Act, that action may diminish the need for or benefit of Congressional direction for RTOs and ISOs to address those issues.

As a general matter, the Commission prefers to focus on the services and performance quality that the system needs and establish market rules that ensure the cost effective provision of those services at the required level of performance. Some elements of the Discussion Draft would require intervention into markets to place a value on a specific class of resources (e.g., resources that can operate on a continuous basis for an extended period) or a diversity of fuel-types rather than allowing the market participants to drive the appropriate valuation of an identified system need. While the Commission recognizes the need to encourage an adequate supply of resources that provide operational characteristics that are responsive to system needs, these elements in section 4221 may unduly impair the competitive aspects of these markets, to the ultimate detriment of consumers.

Some elements of section 4221 may also cause unnecessary conflicts between federal and state regulatory efforts. For example, section 4221 would require RTO and ISO markets to

“facilitate fuel diversity” and “identify and address ... market-distorting incentives.” The Commission and states may differ on the proper components of each fuel in the generation portfolio. Further, some states may assert that what an ISO or RTO deems to be a “market-distorting incentive” is in fact a legitimate policy adopted by a state to meet its specific policy needs. Similarly, regulators may differ on which facilities can generate “during emergency and severe weather conditions,” since this phrase may or may not include drought-prone hydropower facilities; coal facilities dependent on winter-impaired deliveries of coal by rail or barge; or natural gas facilities affected by wellhead freeze-offs.

The process required under Section 4221 of the Discussion Draft is somewhat similar to the process the Commission has used to develop new market rules in the face of evolving system needs. On several occasions, most recently on the issue of fuel assurance, the Commission has identified a specific issue with how market rules are functioning and required ISOs and RTOs to report to the Commission how they are addressing the identified concern. One benefit of such a process is that it allows each ISO or RTO and its stakeholders to describe whether and how market rules address an identified concern or system need in a manner reflective of regional differences. When the Commission has taken such action, it has done so to gather information in an effort to inform what could become an action under section 206 of the Federal Power Act. The Commission would institute a proceeding under section 206 of the Federal Power Act only after making a determination that an ISO or RTO’s market rules may have become unjust and unreasonable and/or unduly discriminatory or preferential.

If Congress directs the Commission to take action beyond what the Commission is currently pursuing, it would be useful to clarify that Section 4221 of the Discussion Draft would require a process in which each ISO and RTO would examine the specified criteria and present

its findings to the Commission, on an informational basis, in the form of an action plan with an implementation timeline to adopt market rule changes to address any criteria not addressed by current market rules. Building on that foundation, each ISO or RTO then could propose specific market rule changes to the Commission, in accordance with that timeline and pursuant to section 205 of the Federal Power Act. Alternatively, the Commission could use that foundation as a basis to institute proceedings under section 206 of the Federal Power Act. As currently drafted, it is not entirely clear how the submittals required under Section 4221 of the Discussion Draft relate to those important provisions of the Federal Power Act.

Office of Compliance Assistance

Section 4211 of the Discussion Draft would establish an Office of Compliance Assistance. This Office would seek to promote improved compliance with the Commission rules and orders in several ways: make recommendations, issue reports and guidance, and conduct outreach. While I support the goal of this section, I believe that the Commission, the Offices within the Commission and the Commission staff are currently and actively performing much of the work envisioned by this section.

The Commission's mission is to protect the Nation's energy customers by fostering energy markets that produce just and reasonable rates, effectively enforcing both market and reliability rules, and promoting development of needed energy infrastructure. In carrying out those responsibilities through appropriate regulatory and market means, the Commission assists consumers to obtain reliable and efficient energy services at a reasonable cost. The Commission also is committed to procedures that provide interested parties, including consumers and regulated entities, with both opportunities to provide input to the Commission and explanations of the Commission's actions.

On cases pending before the Commission, the Commission has detailed notice and comment procedures to ensure it has an adequate record prior to making a decision. The Commission also examines and applies, as appropriate, the relevant existing Commission rules and precedent to the issues before the Commission. The Commission works to ensure that market rules recognize regional differences where necessary but applies the underlying legal, economic and reliability framework in a consistent manner.

The Commission can use a range of strategies to ensure that interested parties have an appropriate opportunity to inform our decision-making when it wants to explore changes to its energy policies, identifies potential enhancements to market design and rules, proposes new initiatives, or considers potential improvements to industry and Commission practices. The strategies implemented by the Commission and/or its staff include: holding public meetings and conferences; conducting frequent outreach; issuing for public comment draft documents, such as white papers, reports, proposed rulemakings and policy statements; seeking and thoroughly considering public comments in response to Commission or staff actions; and participating in collaboratives with our state colleagues. State commissions, state consumer advocates, and state attorneys general are active in our proceedings and provide valuable input in our decision making. The Commission and its staff constantly strive to balance the different interests, including weighing the necessity of policy changes against providing regulatory certainty.

Among numerous recent examples, I will mention the Commission's recent efforts on fuel assurance. Those efforts resulted from two public technical conferences, one on capacity market design and another on lessons learned during extreme winter weather in 2014 (Polar Vortex). Following both conferences the Commission sought written comments. Based on the comments and the discussion at the technical conferences, the Commission issued an Order on

Technical Conferences that described the Commission's concerns about fuel assurance and required reports from the ISOs and RTOs on what they were doing to address fuel assurance concerns. Finally, the Commission accepted public comments on the ISO and RTO reports.

The Commission's efforts to identify enhancements to market design or consider potential improvements to industry and Commission practices involve a multi-disciplinary team of policy experts, attorneys, economists and engineers that come from multiple Offices within the Commission. These cross-office teams provide a range of perspectives as they analyze the information gathered and received, to craft options for the Commission's consideration.

Market participants have multiple ways to seek guidance on compliance with market rules and the Commission's anti-manipulation rules. Informal guidance is provided through the Compliance Help Desk and meetings and discussions with individual members of Commission staff. No Action Letter responses, legal opinions issued by the Office of the General Counsel, and interpretative letters issued by the Chief Accountant provide written guidance from Commission staff. While not binding on the Commission, these advisory materials provide confirmation of staff positions that reflect various levels of staff consensus.

In light of these existing practices, it appears that Section 4211 could create duplicative proceedings for consumers and regulated entities. To the extent Section 4211 envisions an Office of Compliance Assistance within the Commission that is meant to be independent from the rest of the Commission's staff, such a development also could undermine the current coordination among Commission Offices and impede the Commission's ability to fulfill its mission.

Further, several elements of section 4211 in the Discussion Draft could contribute to confusion rather than increasing clarity on compliance with the Commission's requirements. For

instance, section 4211 of the draft legislation would require the Office of Compliance Assistance to provide real-time compliance guidance. Any guidance that staff provides must be based on the factual basis provided. Further, staff frequently need to discuss a situation with the market operator to understand better the practical implication of any requested guidance. In addition, staff would likely need to review all relevant tariff provisions and associated Commission orders. Thus, although Commission staff currently endeavors to provide timely guidance in response to inquiries on compliance matters, the information gathering and analysis necessary to provide the compliance guidance makes doing so in real-time challenging in virtually all circumstances.

I would also note that the Federal Power Act already contains a provision for an Office of Public Participation within the Commission. However, that provision, which was added in 1978, has never received funding from Congress.

Conclusion

The continued improvement in wholesale electricity markets is of importance to the Commission. Thank you for inviting me to testify today on the Discussion Draft. I look forward to working with you in the future on these issues and would be happy to answer any questions you may have.

Mr. WHITFIELD. Thanks very much, Mr. Quinn. And our next witness is Mr. Larry Parkinson, who is the director, Office of Enforcement, at the Federal Energy Regulatory Commission. Thanks for being with us, and you are recognized for 5 minutes.

STATEMENT OF LARRY R. PARKINSON

Mr. PARKINSON. Thank you, Mr. Chairman, and Ranking Member Rush, and members of the subcommittee. My name is Larry Parkinson, Director of the Office of Enforcement at FERC. As with Mr. Quinn, I have to have the disclaimer that my comments don't necessarily reflect the views of individual Commissioners or the Commission itself.

I have submitted a longer statement for the record, but I wanted to take a couple minutes just to give a little bit of an overview of the enforcement program. Congress, 10 years ago in EPACT 2005, I think, gave FERC a very strong direction when it came to enforcement. Much of the provisions relating to enforcement stemmed from the abuses by Enron, in particular. And I think the message was we expect FERC to have a strong enforcement program. We expect you to ensure the integrity of the markets. We expect you to catch bad actors, particularly those who manipulate the markets, and we expect you to protect energy consumers.

And Congress gave FERC very important enforcement tools, including significantly increased penalties; and FERC took that direction seriously. It quickly adopted an anti-manipulation rule. It built up its enforcement capabilities. Much of that credit is due to the current chairman, Norman Bay, who headed the Office of Enforcement previously.

We now have a very strong, capable, multidisciplinary group of professionals who are in charge of our enforcement program and carry it out. And I would say that we have achieved notable results. We are still relatively new. It is only a 10-year-old program since we got the new authorities, but in those 10 years, we have returned almost \$1 billion to consumers and ratepayers and to the U.S. Treasury from malfeasance by market actors. We are committed to fairness and professionalism, and we are committed to ensuring the confidence in the markets.

It is important to point out that we have a bipartisan Commission that owns and directs the enforcement program. The Office of Enforcement is not some standalone enforcement entity out there doing its thing without any oversight from the Commission. And there has been, over the last 10 years, remarkable consensus amongst that commission of virtually all of our enforcement matters, whether it is approving settlements that we have reached in the enforcement program, or issuing orders to show cause or other orders, have been virtually all unanimous. So we have had a couple of instances where an individual Commissioner has dissented on one piece or another, but virtually everything has been unanimous.

I would point out, and we will get to this probably in questions, but it is a little ironic that a couple of the provisions at least in the draft are designed in part to seal off the enforcement staff, or at least to erect barriers between the enforcement staff and the Commission. And I think in that respect, they are particularly puzzling.

zling if one of the goals is to make sure that the enforcement program has proper oversight by the Commission.

I would point out that some, a couple of characters, a couple of individuals, have caricatured our enforcement program as a bit of an outlier in the Federal enforcement process. I will say I have been in the Federal enforcement world for almost 30 years. I have worked at a number of different places under both Republicans and Democratic administrations. I will say that when I came to FERC 5 years ago, I was a little bit surprised because we are an outlier. We are an outlier in the sense that we give an enormous amount of process to investigative subjects during the investigative phase. I still am surprised at how much process FERC gives during that phase of the process. And I would point out that process produces delay, and too much delay can be detrimental, not only to the investigative subjects, but certainly to the public and market participants.

One key to understanding the enforcement process is there are two phases, and it is not unique to FERC. It is the same in every Federal enforcement process. And that is there is the investigative phase, which is the fact-finding phase, and there is an adjudicative phase. And there has been, by some, an attempt—not by this committee—but by some in the community to conflate those two components. And part of the language that we are looking at today tries to engraft trial-type processes onto the investigative phase, and I think it is important to keep in mind those two processes are different.

A Federal investigation is a fact-finding process. It is not civil litigation. It is not ordinary civil litigation, and the attempt to engraft civil litigation process on a fact-finding process, I think would be highly detrimental to that process.

I have described in some detail in the testimony our concerns about the four specific provisions. I will just mention them briefly. We do have a Brady policy that works. It was voluntarily introduced. On the transcript issue, witnesses to get access to their transcripts, but in rare occasions access is delayed to protect the integrity of an investigation. And the other two provisions, restricting communications, which I think really would restrict communications, those provisions, between the enforcement staff and the Commission and other offices in the building, would seriously impede not only investigative process itself, but the Commission's ability to manage its own enforcement process.

So in closing, I would urge the subcommittee to, before it adopts provisions like the ones that are drafted, to look at other Federal enforcement programs. I think some of these are unprecedented. They don't exist in other agencies. I think when Congress gave us new authorities in 2005, the intent was to give FERC enforcement the same sorts of tools and abilities that other Federal enforcement agencies have. We have used those, I think, responsibly and professionally, but I think some of the amendments, if adopted, would undermine that authority.

We welcome constructive critique of our enforcement program. I think we are known for that, and we analyze how we are doing our business on a regular basis, and we look forward to any sugges-

tions from the committee. Thank you for the opportunity to participate, and I look forward to your questions.

[The prepared statement of Mr. Parkinson follows:]

One-Page Summary of Testimony of Larry R. Parkinson
Director, Office of Enforcement, Federal Energy Regulatory Commission
Before the Energy and Commerce Committee, Energy and Power Subcommittee
United States House of Representatives
June 3, 2015

Thank you for the opportunity to testify. My name is Larry Parkinson, and I am the Director of the Office of Enforcement of the Federal Energy Regulatory Commission (FERC or the Commission). My office's work can be broken into two stages: an investigative stage (during which staff gathers facts to decide whether to recommend further action by the Commission) and an adjudicative stage (during which the Commission hears facts and arguments and decides whether to impose civil penalties and other remedial measures). The proposed legislation reflected by the discussion draft suggests changes to FERC's regulations governing the investigative stage.

The Commission has a deep commitment to transparency and engagement with the subjects of our investigations, and such subjects have many formal and informal opportunities throughout the investigation to present their facts and defenses to the Commissioners and staff. FERC is one of the most process-oriented and transparent agencies in the federal government when it comes to communicating and sharing information with subjects, but we recognize that too much process and associated delays can impose costs on market participants, the public, and the investigative subjects.

We always are willing to consider changes in the way we conduct investigations, but I would like to raise the following concerns regarding the proposed legislation:

- Subsection 4212(1): The Commission already discloses exculpatory material to subjects. The proposed mandate to disclose "helpful or potentially helpful" materials (possibly including non-factual material) and to ensure that any third party that "assists" with our investigation does the same would pose a tremendous burden on our investigations;
- Subsection 4212(2): The Commission already provides witnesses access to their transcripts on a timely basis and delays such access only when doing so is necessary to preserve the integrity of our fact-finding process. The proposed legislation could be read to undermine our investigative work and infringe the rights of third parties;
- Subsection 4212(3): Existing Commission regulations and policy already wall-off investigatory staff from Commissioners and advisory staff at the adjudicative stage. Erecting a wall at the investigative stage would interfere with the Commissioners' management of the agency and impede access of investigatory staff to subject matter experts at the agency;
- Subsection 4212(4): Subjects already have the right to submit written materials to the Commissioners regarding settlement, or any other topic, at any point in the investigation. Mandating that subjects be allowed to communicate regarding settlement to the same extent as investigatory staff fails to recognize that attorneys who serve as investigative staff have an attorney-client relationship with the Commission and, therefore, are on a different footing than investigative subjects.

**Testimony of Larry R. Parkinson
Director, Office of Enforcement
Federal Energy Regulatory Commission
Before the Energy and Commerce Committee
Energy and Power Subcommittee
United States House of Representatives
June 3, 2015**

Mr. Chairman, Ranking Member Rush, and members of the Subcommittee:

Thank you for inviting me to testify today. My name is Larry Parkinson, and I am the Director of the Office of Enforcement of the Federal Energy Regulatory Commission (FERC or the Commission). I appear before you as a staff witness, and the views I present are not necessarily those of the Commission or any individual Commissioner.

Background

I will begin my testimony today with some background on how the Office of Enforcement—the arm of the Commission tasked with surveilling, investigating, and resolving violations of FERC’s authorizing statutes—functions. Our enforcement work can be broken down into two stages. The first is an investigative stage, during which Commission staff analyzes potential misconduct in FERC markets to determine whether a participant in one of those markets may have violated a FERC authorizing statute. Our job at this stage is, simply put, to gather the facts. After we do that, we determine whether those facts and applicable law indicate that we should recommend to the Commission that it proceed with a further action (usually a settlement or enforcement proceeding) that may result in the imposition of civil penalties, disgorgement, and other remedies against that participant.

The second stage is an adjudicative stage. That stage begins if the Commission determines that there is reason to believe that a violation occurred and the investigative subject declines to settle the matter on terms that are in the public interest. During this second stage, staff and the investigative subject present their arguments and facts directly to the Commission, which determines whether civil penalties or other remedies should be imposed. If the Commission concludes that a violation occurred and assesses penalties, the investigative subject can seek review of that conclusion and assessment in federal court (and the procedures for seeking such review depend on whether the investigation arises under the Federal Power Act or the Natural Gas Act).

Those two stages, investigative and adjudicative, are distinct. The purposes of each are different, the applicable rules are different, and the ways in which staff interacts with the Commissioners are different. It is important to keep those distinctions in mind as the Subcommittee considers the proposed changes to the regulations governing our work. This is because the law and procedures that apply to investigative and adjudicative stages are different at federal administrative agencies. And there is a good reason for this: Applying rules from the adjudicative stage to the investigative stage, or vice versa, can undermine good enforcement policy and can interfere with a federal government agency's ability to effectively investigate and enforce federal law.¹

¹ The differences between the investigative and adjudicative phase of a federal enforcement matter, why those differences are important, and how they work in FERC enforcement cases is explained in more detail in a law review article prepared by Office of Enforcement staff. See Allison Murphy, Todd Hettenbach & Thomas Olson, *The FERC Enforcement Process*, 35 ENERGY L.J. 283 (2014), available at <http://www.felj.org/sites/default/files/docs/elj352/15-283-321-Murphyetal-final-11.1.pdf>

With that background in mind, my testimony today focuses on the changes that the proposed legislation would mandate to the regulations governing the investigative stage of our work.

The Commission in general, and the Office of Enforcement in particular, has a deep commitment to transparency and engagement with market participants. This commitment has made FERC one of the most process-oriented and transparent agencies in the federal government when it comes to communicating and sharing information with subjects. The Commission's regulations and policy statements give subjects numerous formal, procedural opportunities to present their views at various points in the investigation (in addition to many informal opportunities, as noted below). The first of these procedural opportunities comes after staff completes its initial fact-finding and provides its preliminary findings to the subject. At that point, the subject has the opportunity to draft a response to those findings. If enforcement staff decides to move forward, the subject's response is shared with all members of the Commission.

Second, if the Commission authorizes staff to engage in settlement discussions, the subject has another opportunity to offer its view of the facts and applicable legal theories.

Third, if the matter cannot be settled and staff decides to recommend an enforcement action to the Commission, section 1b.19 of the Commission's regulations requires staff to notify the subject of that intent, to offer the opportunity for response, and to share that response with the Commission.

Fourth, if the Commission determines that there is reason to believe a violation has occurred and issues an Order to Show Cause as to why sanctions should not be imposed, the subject has yet another opportunity to explain its conduct and legal defenses in writing. The Commission considers such explanations before reaching any final determination on whether the subject committed a violation and should be assessed any penalties.

In addition to these formalized processes, our office engages in a great deal of informal back-and-forth with subjects and their counsel. They can, and often do, call or email staff throughout the course of an investigation to discuss the Commission's concerns and to offer relevant analyses, facts, and opinions. In addition, they can, and often do, write to the Commissioners directly during investigations to present their views. This right to submit information throughout the investigatory stage is formally embodied in the Commission's regulations and policy statements.

The formal and informal opportunities that the Commission provides to investigative subjects makes our investigative practice one of the most transparent, if not the most transparent, in the federal government. If anything, there are legitimate questions about whether FERC may have too much process. As important as process is to both the Commission and subjects, too many procedural steps in the course of an investigation can delay resolution of that investigation. Such delays can harm consumers (by delaying the return of unjust profits to market participants affected by unlawful conduct), market transparency (by delaying a public presentation about the types of

market behavior that the Commission has determined to be unlawful), and the subjects themselves (by delaying resolution of the investigation of their conduct).

I now would like to offer my views on section 4212 of the proposed legislation.

Subsection (1)—Disclosure Of Exculpatory Material

I will start with Subsection 4212(1), which would require the Commission to promulgate a rule mandating that staff disclose “any exculpatory materials, potentially exculpatory materials, or materials helpful or potentially helpful” to a subject’s defense within seven days of providing a preliminary findings letter. At the outset, I want to make sure that the Subcommittee is aware that the Commission voluntarily adopted a policy mandating disclosure of exculpatory materials more than five years ago. That policy requires enforcement staff to review all materials it receives during an investigation and to provide the subject with any materials that a criminal prosecutor would have to provide pursuant to the United States Supreme Court’s decision in *Brady v. Maryland*—that is, to provide the subject with any exculpatory evidence known to the government but unknown to the subject that is “material to guilt or punishment.”

The Commission adopted this policy voluntarily. Because there is no Constitutional requirement to have such a policy in a civil enforcement context, not all federal enforcement agencies have adopted policies concerning disclosure of exculpatory information. And those agencies that have adopted such “Brady” policies generally disclose information to subjects *later* in the enforcement proceedings than FERC does. Furthermore, Commission staff takes its disclosure policy seriously—it is trained on how to handle exculpatory material, conducts diligent searches for such materials, carefully

considers any supplemental requests from subjects for additional materials, and promptly elevates any issues to Office of Enforcement management. When staff identifies exculpatory material, it promptly turns over that material to the subject's counsel.

The language in subsection 4212(1) could undermine existing policy and drastically burden and delay our investigations. Most significant, the proposed language goes far beyond any traditional definition of "*Brady* material" by including the term "materials helpful or potentially helpful to the defense." That term is not defined, and it is unclear as to how staff should go about identifying such information (particularly given that the subject may not have disclosed all of its defenses at that stage), but a literal reading of that term could seriously disrupt the investigative process. As a former federal prosecutor and someone with nearly 30 years of experience in federal enforcement work in several federal agencies, I am not aware of any federal agency that operates under such a requirement. Requiring staff to identify and disclose material that could be "helpful or potentially helpful" to a subject would impose difficult and time-consuming judgments that extend well beyond what even criminal prosecutors are required to undertake.

Moreover, this obligation does not appear to be limited to factual material. The plain language appears to include non-factual material such as staff's internal analyses of the evidence and legal memoranda, and it could be read to override the well-established protections for attorney work product, attorney-client communications, and the agency's deliberative process.

Finally, the requirement to ensure disclosure by other federal agencies, state agencies, and non-governmental organizations that "assist" an investigation would be

extraordinarily difficult to administer in many of our cases. While the term “assist” is not defined, it could refer to any instance in which a third party either (1) responds to a data request or subpoena or (2) engages in any discussion with enforcement staff. If so, the proposed legislation may require Commission staff to ensure that such entities—including state regulatory agencies—search through all of their files and produce any information that could be “helpful or potentially helpful” to the subject. Presumably, staff would need to compel the third parties to conduct such searches and to provide substantial guidance regarding the types of materials that must be disclosed. This type of process, which is unprecedented in federal enforcement as far as I am aware, has the potential to cause extraordinary delay in FERC investigations and to compromise the agency’s ability to effectively and efficiently resolve enforcement matters.

Subsection (2)—Access To Transcripts

Subsection 4212(2) would require the Commission to provide any entity or person subject to an investigation access within a “reasonable time” to the transcripts of sworn testimony taken during that investigation.² I will provide a little background before addressing the substance of this provision. Commission regulations already entitle a witness to a copy of the transcript of his testimony unless there is good cause to deny the request. Staff almost always makes such transcripts available promptly upon request, and it delays access only in the rare instance where there is a threat to the integrity of the fact-

² The sworn testimony that enforcement staff takes during an investigation is not considered to be a “deposition” as that term is commonly used in civil litigation. While many aspects of traditional “depositions”—such as attendance and participation by a witness’s counsel—are present during FERC investigative testimony, there are other aspects that are not present. Neither FERC’s rules nor the rules of other federal enforcement agencies (as far as I am aware) use the term “deposition” to describe investigative testimony.

finding process. In fact, over the past six years, we have conducted more than ninety investigations and have delayed access to transcripts in only about a dozen of those matters.

Accordingly, the issue under the Commission's existing regulations is not *whether* a witness will receive access to his or her transcript. The issue is whether staff (with management review and approval) can delay such access for a short time in certain, rare instances. This is an issue that has been litigated before the Commission, which concluded that such delayed access is appropriate in some circumstances.

The reference to "reasonable period of time" in subsection 4212(2) may simply codify in statute the Commission's existing regulations and practice. On the other hand, I would be greatly concerned if that language was meant to eliminate the good cause standard for delaying access in the few instances when it is necessary to do so.

I would also be very concerned about the language that provides that the subject would be provided access to "*any deposition involving such entity or person.*" In many cases, such a requirement would be problematic if the subsection were read to require the Commission to provide the investigative subject—and not just the witness—access to the transcripts of all testimony taken during an investigation. During the investigative stage, there is often good reason to avoid giving transcripts of testimony taken of one subject to a different and potentially-adverse subject, particularly if, for example, the witness is a whistleblower or the witness's interests are adverse to the company. It is important that individual witnesses can obtain access to their own transcripts—and, in FERC investigations, they can. But it would be harmful to the investigative process and

compromise the rights of individual witnesses to mandate that every investigative subject automatically gets a copy of all testimony, particularly while an investigation is ongoing. No other agency of which I am aware is required to take that approach, and I do not believe FERC investigations should be treated differently in this key respect.

Subsection (3)—Communications With Commissioners And Advisory Staff

Subsection 4212(3) would require that any communications between investigatory staff and the advisory staff regarding the merits of an investigation be in writing and on the record. This would be a dramatic change to existing practice and seriously undermine the Commission's ability to administer its enforcement function.

Under existing FERC regulations, policy, and practice governing the adjudicative stage—which starts when the Commission issues an Order to Show Cause—the Commissioners sit as neutral arbiters and they and the Commission staff who may advise them are walled-off from the investigative staff litigating the matter before them. During the investigative stage, by contrast, the Commission itself is responsible for directing, supervising, and setting priorities regarding the work of Enforcement staff. To perform that function properly in the enforcement context, the Commissioners and their staff need to be able to communicate freely with investigative staff on a wide range of topics, including the types of conduct staff is investigating, the progress of those investigations, the merits of potentially settling those investigations, and many other important judgment calls that arise in complex enforcement cases. All of those types of communications may be considered to fall within the phrase “regarding the merits of the investigation.” Requiring that they all be in writing—without the ability to have candid back-and-forth

discussions and oral briefings—would be extraordinarily inefficient and would significantly impede the Commission’s exercise of its management responsibilities. Further, requiring that such writing be “on the record” would make candid communication almost impossible—particularly given the lack of any express protections for attorney work product, attorney-client communications, or agency deliberative process in the proposed legislation.

Moreover, erecting a wall between investigative staff and advisory staff during the course of an investigation would deprive the investigative staff of the expertise of other FERC offices (and vice versa) during investigations. This would dramatically change current practice and largely isolate enforcement staff from the rest of the agency. The Commission generally considers all staff outside of the Office of Enforcement to be advisory during the adjudicative stage; therefore, if that model were extended to the investigative stage, the proposed legislation would require that all communications with Commission engineers, analysts, economists, lawyers, and other knowledgeable professionals outside the investigative team be in writing. Virtually every complex FERC investigation involves collaboration with a multi-disciplinary team. Enforcement staff relies on these experts to help analyze data and legal theories and reach thoughtful, informed conclusions about what conduct constitutes a violation, and whether such conduct is (or is not) harmful to FERC-regulated markets. Forbidding oral communications and meetings between investigative staff and the Commission’s subject matter experts would seriously impede the ability of the Commission to make informed decisions about enforcement matters and enforcement policy.

Investigators have an essential interest in communicating with advisory staff (and vice-versa). I am confident that no other federal enforcement agency—whether the SEC, CFTC, FTC, or others—is subject to the types of limitations suggested in the proposed legislation. FERC should not be subject to these limitations either. This proposed rule has the potential to severely undermine the Commission’s ability to carry out the core enforcement role that Congress has given it.

Subsection (4)—Communications Regarding Settlement

Subsection 4212(4) requires that investigative subjects be allowed to “communicate with the Commissioners regarding the substance of settlement consideration to the same extent as such communications occur between the Commissioners and the investigatory staff of the Commission.” As noted earlier, the investigative subject’s response to staff’s preliminary findings is provided to the Commission for its consideration before the Commission decides whether to authorize enforcement staff to engage in settlement discussions. Moreover, subjects already have the right to submit written materials regarding settlement or any other subject directly to the Commissioners during an investigation. It is not clear what this provision is meant to address, but it fails to recognize that the attorneys in the Office of Enforcement act as *counsel to the Commission* and, as such, have an obligation to provide candid advice to the Commissioners regarding settlement considerations during the investigative stage. I believe it would be a significant mistake to interfere with Commissioners’ ability to obtain such candid advice from its own attorneys at that stage by treating investigatory staff and subjects as being on the same footing (as they are during the later adjudicative

stage). And, again, no other enforcement agency of which I am aware has such substantial restrictions on the ability of staff and the heads of the agency to communicate freely.

Conclusion

Thank you for inviting me to testify today on the proposed legislation. FERC's Office of Enforcement welcomes constructive analysis of its policies and procedures and is always willing to consider changes in the way we conduct investigations. The provisions in the proposed legislation, however, would be very harmful to the investigative process and, if enacted, could significantly undermine the Commission's ability to carry out Congress's enforcement goals. I look forward to working with you in the future and am happy to answer any questions you have.

Mr. WHITFIELD. Mr. Parkinson, thank you very much for that statement. And I recognize myself for 5 minutes of questions.

I think on both sides of the aisle, while we frequently have different philosophies, political philosophies, and differ on a lot of these issues, I think all of us agree that this regular order process of bringing legislation, forming legislation, coming up with a final product, is the way to go. And when we have these hearings, and we have had a lot, we hear from the administration and we ask questions, and that is how we try to narrow this focus down and try to come up with the best product that we can, recognizing that you are not going to necessarily agree with everything that we are doing, and we don't necessarily agree with what we are doing sometimes with each other. But we come out with a final product, and that is what our goal is today.

So, Dr. Hogan, when the Energy Policy and Conservation Act was first passed in 1978 in the Carter administration, one of the missions and the intent was certainly to develop minimum efficiency levels for certain appliances as measured in kilowatt hours. Would you agree that that was one of the original intents of the original Act in 1978?

Ms. HOGAN. I think it is to set minimum standards to, you know, look for efficient, to help set thresholds for efficiency so that people can save money through better efficiency products. That is right.

Mr. WHITFIELD. Save money as well save the use of energy, use less energy?

Ms. HOGAN. That is right.

Mr. WHITFIELD. And as I noted in my opening statement, that hearing we had with the private sector, not only the hearing but also letters, calls, there is more and more concern being generated by these manufacturers who worked closely with the Department of Energy in coming up with better efficiency standards that the additional efficiency being generated is very small, and the cost is going up. And some people may take offense at this question, but I am going to ask it because it is of concern to us.

It seems to some of us that DOE is using the Energy Policy Conservation Act to further the President's climate goals, an objective wholly outside the statutory purpose and requirements of EPCA. And so, this would lead me to believe that the DOE's aggressive efficiency push is to benefit the President's negotiating position in Paris this year, rather than what may be in the best interests of American consumers and manufacturers.

So I would ask you, I mean, that is a feeling that some of us have. That is statements we have heard from various manufacturing and consumer groups. I would ask you, do you feel like you are going beyond the original intent and purpose of the Energy Policy Conservation Act?

Ms. HOGAN. I certainly appreciate you asking that question, if that is what you are hearing and that is what you may feel. You know, there is very clear language in the authorities that have been given to us by Congress, and that is for us to set standards that are technically feasible and economically justified. And that is being done on an economics basis. We also are asked to, once we set standards, to go back every 6 years typically and look to see

if those standards are appropriate for being updated, a so-called 6-year look-back provision.

That is, indeed, what we are doing at the Department of Energy, is proceeding under the good direction that we have been given by Congress to set these standards in a way that makes sense on a cost-benefit basis for how we can help businesses and consumers to continue to save energy and save money.

Mr. WHITFIELD. Yes, save energy and save money, but when it escalates the cost of the product, that is not helping the consumers. And, you know, I asked the staff to prepare a list of regulated residential products that you all are involved in right now: Clothes dryers, close washers, central air-conditioners, heat pumps, ceiling fans, battery chargers, dehumidifiers, heating equipment, dishwashers, kitchen ranges, ovens, microwaves, pool heaters, refrigerators, and it goes on and on; and then we get into the commercial and industrial side, and it is even a longer list. And so, you know, we are just trying to bring a more balanced approach to some of this, recognizing that you have your responsibility, but it is more than—I mean, we all like to say, OK, we want to be more efficient, less energy, and save consumers money.

But at the same time, if it costs them so much going in, and it makes the products not work as well, maybe short-lived, then I am not sure that it is accomplishing the purpose that was intended. So we are going to continue to discuss about this because we don't have a final product yet, but I just wanted to get that out there, and my time is now expired. So, Mr. Rush, I recognize you for 5 minutes.

Mr. RUSH. Thank you, Mr. Chairman. Deputy Assistant Secretary Hogan, one of the more contentious provisions included in the discussion draft is Section 4124, which would prohibit the Department from promulgating a final rule amending efficiency standards for nonweatherized gas furnaces and mobile home furnaces. And we have had several meetings in my office on both sides of this issue, and I want to hear directly from the Department on this issue for the record.

And let me begin by asking a question. First of all, Mr. Chairman, I am not offended, but I am kind of really startled by your question, but I am going to move on beyond it. I don't think the President would stoop to the level that he would use a Federal agency to buttress some kind of advantage at a conference in Paris, or in any other place in the world in the fall or the winter or any other time. I think the President has a sense of responsibility, and he is sworn to his office and duties just as we all are. I am not offended. I am just somewhat taken aback a little bit by that statement.

Madam Assistant Secretary, in the previous energy efficiency hearing we heard several, as I mentioned before, conflicting comments in this room on low-income consumers. And I want you to speak on the record about the rationale behind this rule, and its expected impact on the lower-income communities, and if you will give us an overall expectation environmentally in terms of the impact of this rule?

Ms. HOGAN. So we do have a rulemaking that is underway for gas furnaces. At the top level, this rule, as proposed, and let me

stress that this is a proposed rule, would offer net benefits on the order of \$16 billion in the coming years, so significant benefits. When we do do our rulemakings—again, it is a proposed rule—we do look closely at low-income communities and senior households, so we do look at the impacts on the full set of households that are out there. Certainly, but I guess the other thing I do want to continue to emphasize is that this is a proposed rule. I think it is also a rule where we are trying to be and are being as open and as transparent and working with as many stakeholders as possible so that we can get all of the best information that we can and to hear their concerns before we would move forward to finalize this rule.

We have had multiple public meetings. We have extended the comment period. It remains open as we sit here today, and even after the comment period closes, industry and others can come in and engage with the Department to share data and issues, and we are open to all of that information. I know we have also been up on the Hill briefing various staffs, including yours. We are happy to continue this conversation, and I think we can find a way, the right place, for this rule to land.

Mr. RUSH. Do you foresee the possibility that as a result of your actions, that your costs for furnaces and heaters, that that would be prohibitive to the poor in this Nation? Do you foresee that as being a likelihood or even a distinct possibility in the future?

Ms. HOGAN. So like with any product, we see a range of costs, depending on the characteristics of a household. Certainly those people that are in the colder climates that have homes that have less insulation, for example, would be the type of households that would benefit the greatest from a furnace standard.

So we see that there can be really great benefit from this rule for some low-income homeowners that would be in certain situations. I guess the other thing I should just point out, because some people sometimes don't understand this, is when we do a rule-making, it really affects the purchase of a new furnace. There is a lot of furnaces that would be in place that will be in place for quite a while because the real thing you will do for them if there is an issue, is you will repair them. There is a lot of repair opportunities for furnaces that are in today's homes, and the standard really applies at the point when you are totally replacing that furnace. I also think when you look at the low-income population, you will see a fair amount of use of radiators and boilers and other technologies that this rule will not apply to.

Mr. WHITFIELD. The gentleman's time is expired. At this time, I recognize the gentleman from Texas, Mr. Olson, for 5 minutes.

Mr. OLSON. Thank you, Mr. Chairman, and welcome to Dr. Hogan, Mr. Quinn, and Mr. Parkinson. My first question will be for you, Dr. Hogan. In a prior hearing of this subcommittee, we heard concerns about how DOE sets appliance standards for efficiencies. The chairman brought up examples like water heaters and furnaces. I want to talk about how DOE considers the economics of these improvements. Obviously, there are some parts of the country where local situations dominate. For example, spending a few thousand dollars in New England makes a lot of sense on a furnace because they have two seasons of cold, cold, and one season of colder.

In Houston, Texas, we have one season, hot and humid, with three seasons of 95 degrees and 95 percent humidity.

So clearly, some sort of furnace doesn't matter too much to me, but an efficient air-conditioner means a heck of a lot in Houston, Texas. So could you please discuss how you consider regional differences when you look at these new standards? Do you consider them?

Ms. HOGAN. So we do look at a variety of options when we set standards for things like furnaces and air-conditioners. Actually, if you look at air-conditioner standards in place in this country right now, you will see that we do have regional standards. Those regional standards are in place because industry came to us with a consensus recommendation that that is the approach that we should take. So certainly we have been able to consider that in the past and are certainly open to that conversation.

Mr. OLSON. Great, because it is not a problem for air-conditioners. Obviously heaters, for instance, and just as well because, again, in Houston we use ours probably five times a year. My kids love to kick on the gas fireplace and keep warm with that. So please make sure you commit to making sure you take regional differences into account with these new standards, making sure that one size doesn't fit all because in Houston, Texas, it is much different than Boston, Massachusetts.

Ms. HOGAN. We certainly understand the climate differences across the country. We do.

Mr. OLSON. OK. Take this into account, please, ma'am. Thank you.

Next question is for you Mr. Parkinson. You said a word that makes Texans shudder: Enron. Houston still remembers local and national crisis caused by Enron's collapse. There is no place for bad actors in the energy market. However, I know there are plenty of good actors out there working through a very complex system. I appreciate, therefore, in the draft, discussion draft the concept behind an Office of Compliance assistance to help companies navigate through the FERC process. Can you tell me what resources are currently available today for companies to stay on the right side of the law, and do you believe that these resources are convenient and located inside FERC conveniently? What is out there, sir?

Mr. PARKINSON. I do think they are sufficient, and Mr. Quinn may want to weigh in as well. We do have multiple avenues for folks to come in and receive guidance from FERC. On the market side, in particular, there is an opportunity for actors in the markets to come, and if they are wondering about whether a particular activity is lawful or not, they can request a no-action letter. There is a process by which any market participant can seek a no-action letter. Very few people do it in the enforcement world. And I am not sure why they don't do it, but I will say that that opportunity is there. We freely communicate in the enforcement side with counsel, and with our investigative subjects about what we think. There is very little mystery about what we have concluded and what we think the law is.

The Commission tries to set forth in detail its rationale for what it considers market manipulation. There are dozens of settlement orders out there where the Commission has tried to set forth that

guidance, as well as in Order 670 itself. So the Commission does make a significant effort to educate. An example last week, the Commission issued an 89-page order in one of our market manipulation cases which laid out in great detail not only facts, but its legal conclusions and what it believed the standard should be. That is pretty unusual in the Federal Government to have a Commission put that kind of time and effort and try to lay out that sort of guidance in that kind of detail.

Mr. OLSON. Mr. Quinn, final comments? I am over my time, so make it quick please.

Mr. QUINN. I would just add that there is other informal methods for getting guidance. There is a compliance help line. There are also formal ways to do that through a request for declaratory order.

Mr. OLSON. Thank you. Yield back.

Mr. WHITFIELD. At this time I recognize the gentleman from California, Mr. McNerney, for 5 minutes.

Mr. MCNERNEY. Thank you, Mr. Chairman. And I appreciate the effort that is going into this bipartisan bill. Dr. Hogan, how much do you think the Clean Power Plan's goals could be met by energy efficiency improvements alone?

Ms. HOGAN. As you know, the administration supports sort of an all-of-the-above strategy, and clearly, energy efficiency is part of that all-of-the-above approach. There is a substantial amount of energy efficiency that is available in all parts of the country, but I am not sure I want to go too much farther than that other than there is energy efficiency available as a low-cost resource in all parts of this country.

Mr. MCNERNEY. And that wouldn't affect the grid's reliability?

Ms. HOGAN. It should help the grid's reliability.

Mr. MCNERNEY. Thank you. Mr. Quinn, on Section 4211, how much regulatory burden do you think that that section would add to energy producers in this country?

Mr. QUINN. I think our primary concern is simply that most of what Section 4211 requires is already being done by Commission staff with a secondary concern that to the extent that you had a separate independent office doing that, there is the potential that the guidance presented in the recommendations for improvement would become inconsistent with other guidance from Commission staff.

Mr. MCNERNEY. OK. Mr. Parkinson, do you believe this regulation would make the States more vulnerable to market manipulation like was experienced in California in the year 2000?

Mr. PARKINSON. With respect to the four amendments that are in the draft, yes.

Mr. MCNERNEY. Thank you. Mr. Parkinson, what are the implications of the phrase "helpful and potentially helpful" in Section 4212?

Mr. PARKINSON. That is really a pretty dramatic rewrite of what people refer to as the Brady doctrine, even in a criminal context, which is where it really applies. Brady does not apply legally, at least constitutionally, in a civil context like we are under, even though we voluntarily adopted it as a Commission in 2009. But it really, under that standard, essentially what it would end up being is an open file discovery policy. If you say you are entitled to infor-

mation and possession of FERC that is helpful or potentially helpful to the defense, I don't know what wouldn't be, whether it is inculpatory, exculpatory or anything even neutral.

If I am defending an investigated subject, of course everything that the Government has is helpful to me, or potentially helpful, even if it is—maybe especially if it is inculpatory, I would like to know that because it is helpful to me in preparing my defense. I think that that language, in particular, is our biggest concern about that part of the proposed 4212.

Mr. MCNERNEY. So you feel it would be an advantage to eliminate that terminology?

Mr. PARKINSON. Absolutely.

Mr. WHITFIELD. Would you tell us what that terminology is again?

Mr. MCNERNEY. Helpful or potentially helpful in Section 4212(1). Next question, in Section 4212(4), would that section compromise the attorney client privilege or affect impartial fact-finding conducted by FERC?

Mr. PARKINSON. It certainly could. I don't think there is any question it would impede the ability of the enforcement staff to regularly communicate with the Commission and with others in the agency. It simply is unworkable to restrict the enforcement staff from those communications unless we ignore the fact that the Commission itself owns and manages its enforcement program. I mean, it does wear two hats in this world. It is responsible for having a strong enforcement program, and it is also responsible at later stages in particular cases to be adjudicators.

But much of the discussion around this has been focused only on the adjudication phase. I don't know how a Commission effectively oversees an enforcement program if the enforcement staff isn't able to regularly communicate with them without having to put it in writing or without having to give the investigative subject the opportunity to address the Commission in the same way. We are counsel to the Commission, and our investigators are lawyers, and we give legal advice to the Commission on an ongoing basis.

Mr. MCNERNEY. Thank you, Mr. Chairman.

Mr. WHITFIELD. At this time I recognize the gentleman from Illinois, Mr. Shimkus, for 5 minutes.

Mr. SHIMKUS. I just got back, Mr. Chairman, so I will yield to the next member.

Mr. WHITFIELD. OK. Mr. McKinley of Virginia for 5 minutes—I mean, from West Virginia.

Mr. GRIFFITH. Mr. Chairman, some of us in Virginia never acknowledged that they lawfully were transferred.

Mr. WHITFIELD. Well, Mr. McKinley is such an easygoing guy. I knew it wouldn't bother him.

Mr. MCKINLEY. Just like this all the time. The question that I was wrestling with a little bit on the efficiency issue has to do with a little bit deeper from an engineering perspective, and that is on indoor air quality and the impact that has on energy efficiency, and I am just curious as to how you have taken that into consideration, because as we know, we can be, we can have the best equipment available, but if we are not using it properly, we are going to defeat the purpose. And we know that—that was one of our practices in

architecture engineering, what we did was we went into schools, and we found out schools all over America that we were called into are not operating their equipment. They may have new equipment, but they are not operating it properly. So we can spend all this money to put all this new equipment in, but if it isn't operating, so where are we going within energy efficiency within FERC or with the DOE?

Ms. HOGAN. Certainly we pay attention to indoor air quality at the Department of Energy as we think through energy efficient homes and buildings. We have got a program now that we are working on with builders across the country, called Zero Energy Ready Homes, which is really a way of saying energy efficiency first, and then rolling in renewable energy as it makes sense. And that is a high-performance home specification that builders are building to that gives a lot of thought to indoor air quality issues, water management, home design, sort of the whole package.

Mr. MCKINLEY. And in conjunction with that, that is where some people are saying, and I am just taking into consideration from the professional engineering position, is that the tighter we make our buildings and more efficient, or effective with this wrap and the closed windows and we don't get in fresh air, it is its no wonder that we are having more indoor air quality problems, that people are having asthma and other health-related issues as a result of this.

I am not convinced yet that we have the answer. We know the EPA, in and of itself, has said that indoor air quality is probably 90 times worse than the outdoor air quality, and they relate it to the levels of formaldehyde that we have in our indoor air because of our carpet, our furniture, our clothing, all giving off these gases; and we are not circulating the air the way we are supposed to. So we may have the best equipment, but if we are not handling it right, what are we doing?

Is anyone willing to acknowledge that perhaps some of the health risks that we have—you have heard the rattle off. I have heard it from across the aisle—all the asthma attacks, the early health risks, sick days, are all caused by coal. Well, I want to submit to you that perhaps it is a lot caused by indoor air quality when we are not operating our homes in the most efficient way. How can you respond to that? Would you agree that indoor air quality is a problem?

Ms. HOGAN. I certainly agree that indoor air quality is something that we need to pay close attention to.

Mr. MCKINLEY. Is it a problem?

Ms. HOGAN. We work with EPA on indoor air quality issues.

Mr. MCKINLEY. Do you think—I am sorry.

Ms. HOGAN. Absolutely it is an issue that—

Mr. MCKINLEY. OK. I just wanted to hear you say that it is a problem, because I haven't been able to get anyone else to acknowledge that it is a problem. So thank you for stepping up. OK. Thank you.

So where do we go from that?

Ms. HOGAN. We continue to work on it. I think one of the other ways that we are working on it, we are a participant in the

ASHRAE committees that are looking at, you know, standards around airtightness for homes and—

Mr. MCKINLEY. And school classrooms. We know that school systems, public buildings, Federal buildings, they will close dampers so they will shut off so that fresh air—they are not bringing fresh air into it, so that they don't have the air turnover. We know a classroom should have two to four air turnovers per hour, and they are not getting it. Little Johnny is sitting there sneezing next to Nancy, and they are dealing with the same air all day long, and then they wonder why does little Johnny get sick.

Ms. HOGAN. That is right. And there is a lot of effort being put on ongoing continuous commissioning of buildings so that you can keep the buildings and their equipment in sort of top notch operating, you know, performance, and that is another effort that the Department of Energy is continuing to work on for really buildings of all types.

Mr. MCKINLEY. Well, I am just saying that I know the frame—we are running out of time, but I just hope as we develop this final draft and as we work down through it is that we take into consideration into indoor air quality because—and thank you for acknowledging that it is a problem and that—see how we can work that into it because having the best equipment doesn't always solve the problem. And having the most efficient doesn't solve the problem if people aren't operating the building properly.

Thank you. I yield back my time.

Mr. WHITFIELD. Chair now recognizes the gentleman from New York, Mr. Tonko, for 5 minutes.

Mr. TONKO. Thank you, Mr. Chair.

Dr. Hogan, Section 4115 of the Energy Efficiency Discussion Draft repeals a provision of the Energy Conservation and Production Act that sets out an aggressive set of energy efficiency goals for Federal buildings. I don't support repealing this provision, and I believe the Federal Government should be a leader in demonstrating what can be achieved with new technologies and building design.

The administration has a number of executive orders that address energy efficiency goals for the Federal Government.

Would you please talk a bit about these and what the administration believes are achievable efforts for Federal buildings.

Ms. HOGAN. Sure. So, you know, we have a very recent executive order as of March of this year that came from the White House that outlines a set of extended and/or new goals across much of the Federal facilities, fleets, and so that includes things like reducing our greenhouse gas emissions by 40 percent by 2025 relative to a 2008 baseline. It includes continuing to improve the efficiency of our Federal facilities by 2 ½ percent per year through 2025, though that 2 ½ percent per year does not just have to be energy efficiency, it can be through the use of on-site renewables. It also includes continued goals for saving water, as an example, and continued growth in the amount of our electricity use that we would get from renewable energy sources growing to about 30 percent by 2025 relative to where we are right now, which is a little under 10 percent.

So these are what we believe to be aggressive but achievable goals, and if you actually cost it out from the savings that we think we can deliver to the taxpayer as we would meet these goals, we estimate about \$18 billion in savings from working to achieve these goals.

Mr. TONKO. Thank you. Thank you.

And the Department has been working on a number of important standards to improve the energy efficiency of various products. Now, the effort to develop a standard for residential non-weatherized gas furnaces is one of those.

I have seen the projected savings for consumers for this rule, and it is very impressive. Since these furnaces are in place for about 20 years, it is important so have an aggressive standard.

This discussion draft sets this rulemaking back, I believe, by a considerable period, further delaying progress on efficiency. I am also not convinced this study will do anything to resolve the potential problems the rule's critics have noted, primarily, that some low-income homeowners might not be able to afford the installation of these furnaces, or that all homes and buildings cannot accommodate these furnaces. I believe the experience has been that installation costs drop and new installation methods develop as familiarity with new products and their installation goes forward. In fact, this usually results in the cost estimates for these rules being high relative to actual experience.

My understanding is the furnaces the rule is recommending are already on the market and account for between 40 and 50 percent of new sales. Would you agree with that?

Ms. HOGAN. I certainly know that the products are on the market. They represent a fair amount of new sales. I would have to go back and confirm those specific numbers, and would be happy to do that.

[The information follows:]

The Department of Energy observed that 36 percent of the residential furnace market was at or above the proposed energy efficiency level in the Notice of Proposed Rulemaking. In 2021, 41 percent of the market is expected to be at or above the proposed level.

Mr. TONKO. OK. And also would you happen to know the projected consumer savings for this rule?

Ms. HOGAN. We think the net present value of savings for the rule is \$18 billion.

Mr. TONKO. Thank you. And DOE's proposed rule takes a different view from that of the rule's critics with respect to the cost effectiveness of this standard.

Do you believe the rule meets the statutory requirement that the standard be, quote, "economically justified"?

Ms. HOGAN. The proposed rule clearly meets that requirement, absolutely.

Mr. TONKO. And I also note that the statutory requirement—that the statutory requirement is that a new standard achieve the maximum improvement in energy or water efficiency.

Does the rule meet those given requirements?

Ms. HOGAN. Yes. We believe that this rule is within our statutory responsibilities.

Mr. TONKO. OK. Well, I thank you, Dr. Hogan. I think this rule offers tremendous benefits to consumers.

With that I yield back, Mr. Chairman.

Mr. WHITFIELD. Chair recognizes the gentleman from Illinois, Mr. Shimkus, for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman, and thank you for letting me defer to—and welcome. This is a great committee. We love talking public policy and these relationships.

Ms. Hogan, I hope that in this debate about efficiency, I have kind of—I am from rural Illinois, 33 counties, small communities. I understand efficiency, and I have accepted some of the arguments that there is return on investment, but I think, you know, Mr. McKinley—and there are some points about new technology that ends up being more costly. Get a new furnace, you have to get new filters. You don't get these little ones anymore, you get the—you don't get the \$12 filters, you get the \$60 filters. A service call is not 100 bucks, it is 250 bucks. Are some of those costs to middle-income, lower-income folks taken into consideration?

Ms. HOGAN. When we do our work, our analysis, we look at all the installation, O&M costs, associated with a change to a higher efficiency unit, absolutely—

Mr. SHIMKUS. Because I am personally starting to have a debate just in my own house about how much savings I have versus the actual cost, because you got to have those technicians out all the time. You know, spring and fall, and, I mean, I just think there is—I hope we are because I am not sure how people, middle to lower income, can afford high efficiency, and the maintenance requires you keep them running at the standard, I think Mr. McKinley was raising, to get that return on investment. Because most people—those old furnaces, they would work. They would work 20 years. Not efficient, but they weren't high tech. If a belt broke, you replaced the belt. Right? So I just want to highlight that.

The other thing is, Mr. Quinn, did we meet recently? I met with FERC on a recent auction. Were you part of that meeting?

Mr. QUINN. I was not part of that meeting.

Mr. SHIMKUS. OK. I couldn't remember. I am trying to ask my staff.

So this is also timely, and just the auction issue, I am in the MISO area. So we had an interesting auction. I found out that those auctions happen every now and then throughout the country. So these questions kind of deal with that a little bit.

In the committee's legislation, you make a statement that some of it is unnecessary because did you already have a lot of pending documents to address several of the wholesale electricity market criteria that the committee highlights in its draft market reform legislation, including price formulation in energy markets, fuel assurance, and performance assurance in capacity markets.

Do you have any idea when these pending docket decisions will be made?

Mr. QUINN. Congressman, I can't say when the Commission will take action. Just simply—

Mr. SHIMKUS. No. That is fine. Just getting it on the record.

Since you can't provide additional details on timing at that moment, will you commit to following up for the record to provide in-

formation regarding the expected timeline for the Commission action on these initiatives?

Mr. QUINN. Congressman, staff has limitations on—legal limitations on saying when the Commission will take action, partly just by matter of law. Second, because it is a five-member Commission, you have got to get—

Mr. SHIMKUS. Yes. So here is our problem. The dilemma is we believe in markets, we believe in competition, but sometimes they go awry and we have a hard time understanding how that happens. I mean, in my briefing, I think the formula per laid out probably was right, but the answers—when you have, in essence, a 300 percent increase, which I think it was in the MISO region, to the average person, there is a concern that something is not right with the form—something is not right with the process. If—so we—maybe a lot of members, Republicans specifically believe in markets, we believe in competition, but—and what our concern is that if we don't get some warm and fuzzies from the FERC, that there may be a call to legislate in the areas of electricity markets in the absence of concrete and timely action by the Commission, we may not have any other choice. So maybe that is a message you can take back to the Commissioners, and you can respond if there is anything else you want to add to that.

Mr. QUINN. The only thing I would add is simply that the amount of work that the Commission staff has done on a number of efforts, including price formation, fuel assurance, has brought together a large number of stakeholders, offered a large number of perspectives on what are really complex issues, allowing the Commission to pursue those activities as they currently are now, understanding the need for timely action would allow us to get the benefit of what that stakeholder community has provided.

Mr. SHIMKUS. Thank you.

Thank you, Mr. Chairman.

Mr. WHITFIELD. At this time, the Chair would like to recognize the gentleman from Vermont. And I want to apologize. I had two Democratic orders. In one of them you were before Mr. Tonko, and the other you were behind, but you are recognized for in 5 minutes and 15 seconds.

Mr. WELCH. I am happy to get my time. Thank you.

A couple of things. One, I am so grateful to DOE and FERC and all of the advocacy organizations that have worked so hard for so long on focusing attention on energy efficiency. And there is two things I think we need in order to ultimately be really successful. One is we need bipartisanship on the jurisdictional committee, and we have got that. It is tremendous.

And, number two, we need to have cooperation and communication between the advocacy community, the regulatory agencies, DOE, and FERC, and the private sector who are in the real world dealing with some of Mr. Shimkus' concerns, because if we have a standard that has the maximum efficiency but nobody can afford it, it is not going to save money and it is not going to save on energy.

So I appreciate this sort of cooperation that recognizes that all of us have to be involved in some give and take, taking into account the real world where home builders are out there banging

nails, where the energy efficiency folks are looking at policy and seeing best practices, and where the legislature has a responsibility to try to find that common ground.

But so, Dr. Hogan, I just want to ask you a couple of things. We have got a great bill here. And there is a few things that have to be wrinkled out. Mr. McKinley and I have some provisions in there that are being debated, and our colleagues, Ms. Blackburn and Mr. Schrader, have an alternative offer on that, and we want to try to work that out. But I want to just ask you a couple of questions about that because that has to do with the DOE rule.

Under current practices, when new building codes are being developed, does DOE consider the cost effectiveness of the codes that it proposes? And, if so, can you describe what that analysis looks like, because there has been some debate on if a 10-year simple payback period analysis would be more effective. You know, it is simple and straightforward, or if a life cycle cost analysis provides also, in some cases, a more complete picture of the cost and benefits of these codes on homeowners?

Ms. HOGAN. Well, thank you for the opportunity to address that question.

DOE does do assessments of measures to take to an independent code body for their consideration as part of updating the national model energy code. And in doing that work, we do do a life cycle approach, life cycle cost effectiveness approach, because we do believe that is a better representation of the cost of more efficient measures that aligns with the way most people buy homes these days. Most people are taking out mortgages.

Mr. WELCH. Can you also do 10-year analysis too on the payback?

Ms. HOGAN. We can do any analysis that we are asked to do. I think we do believe that a life cycle approach is one that tells sort of the best story aligned with the way most people buy their homes. But we certainly can do multiple approaches.

Mr. WELCH. OK. Well, that makes sense.

Another thing, DOE does provide right now robust technical assistance to States and model code development bodies upon their request in the development and adoption of building energy codes. What would be the impact if we were to restrict this technical assistance to only providing those bodies that have requested it with information on proposals with a payback of 10 years or less using simple payback only, and not also providing with the life cycle analysis that they could consider and accept or reject?

Ms. HOGAN. Well, we haven't looked in great detail in terms of what specifically would change if we were limited to a 10-year simple payback. We don't think it would be as helpful to the States in terms of understanding what the measures are, and what the savings are that they could then deliver to home buyers in their State. We do think having, you know, as you can tell, we think doing a life cycle approach is really a better approach, but also just having the opportunity to do multiple approaches so people can actually figure out truly what works for them would be much better.

Mr. WELCH. OK. And just my last quick question, the draft text includes a provision to repeal Section 433 of the 2007 Energy Independence and Security Act. Mr. McKinley and I are working on an

alternative proposal to reform it rather than repeal that provision. Our proposal would replace Section 433 with an extension of energy efficiency improvement targets in Federal buildings and require Federal mortgage agencies to include energy efficiency as a factor in determining value.

What is the DOE view of repealing Section 433? And what do you think about the McKinley Welch approach as an alternative?

Ms. HOGAN. So we think it is great when the Federal Government has sort of a full tool kit of things to help guide its investments. We think Section 433 provides an aspect of that, particularly focused on what we can be doing in major renovations of our buildings. That is in a gap currently in sort of the Federal tool kit. DOE's been making some important progress in, you know, moving forward on 433. But it is really that gap that we think is the important part.

So the extent there are, you know, direction from Congress on how we can continue to have a full tool kit, you know, that is the type of thing we would be happy to work with Congress on to find something that is workable there.

Mr. WELCH. Thank you.

Ms. HOGAN. And we are certainly excited about some of the things going on in the SAVE Act.

Mr. WELCH. Well, good. I thank all the panel members, and I yield back.

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

Mr. LATTA. Well, thank you very much, Mr. Chairman. And to our panel, thanks very much for being with us today.

If I could, Dr. Hogan, Representative Welch, who was just speaking, and I have also introduced legislation that would ensure customers are protected when products are disqualified under the Energy Star program by requiring the EPA to make a determination as to whether consumer compensation is required. This language is supported by many outside groups, including the Alliance to Save Energy, the American Council for Energy Efficiency Economy, and the National Association of Manufacturers.

Let me ask, do you agree that consumers benefit from a strong Energy Star program?

Ms. HOGAN. Yes. As you may know, the Department of Energy is a partner with EPA in the Energy Star program, and we are very supportive of efforts that would help maintain the integrity and the credibility of the Energy Star program, absolutely.

Mr. LATTA. And, again, because the reason I ask is that, you know, we don't want to have manufacturers out there fearing that if they get caught up in lawsuits certain times and with warranty issues and things that there are implied warranties that all of a sudden, you know, they just start saying, you know, we are just going to start dropping the Energy Star program from their lines, and I think you—you are absolutely right that Energy Star is something that we have to maintain, and that is why we are very much for it in the legislation.

If I could ask another question, that is, you know, for over 60 years air-conditioning, heat pump, furnace, boiler, and water heating manufacturers relied on voluntary independent certification

programs that determine efficiency compliance with both the Department of Energy and the Energy Star program. These industry led voluntary certification programs continue to be the gold star for market surveillance and for ensuring product compliance. And, again, I have introduced bipartisan Voluntary Verification Program Act which would require the Federal Government to recognize voluntary industry verification programs to demonstrate energy efficiency standards.

And would you comment on your willingness to work with us to make sure that we can get this enacted into law?

Ms. HOGAN. Yes. We are very supportive of industry led voluntary verification programs. You know, we see that that can play a very important role in that verification space, and we would be very happy to work with you to make sure that something can be constructed that can do that—do that well.

Mr. LATTA. I appreciate that. Also during our April 30 energy efficiency hearing, we received testimony from one appliance manufacturer who stated that the legislative approach taken in the committee's discussion draft regarding the voluntary independent verification programs conserves DOE resources, reduces taxpayer costs, and provides clarity for a manufacturer bringing products to market.

Would you agree with that statement?

Ms. HOGAN. We would agree that a well-constructed, you know, industry led verification program can absolutely do those things.

Mr. LATTA. OK. Let me just follow up. When you say a "well-constructed," how would you define well-constructed?

Ms. HOGAN. Well, just one that works well with the Federal Government in terms of sharing information back and forth so that we sort of know what is going on there and can—and can leverage and benefit from that information.

Mr. LATTA. And right now do you think that there is that good back and forth from the industry to the Federal Government on that between the industry?

Ms. HOGAN. So we have a model program that we do work with with AHAM, and we have been in conversation with the heating and cooling and, you know, industry as well about how to structure such an effort through—through, you know, a fairly lengthy conversation.

Mr. LATTA. OK. In that conversation that you were having, what is the feedback you are getting from the industry side?

Ms. HOGAN. So we are talking with them. We are also talking with people on the Senate, really, who are also constructing similar legislation, and we think we are really close in getting to some good language.

Mr. LATTA. Mr. Chairman, I yield back the balance of my time.

Mr. WHITFIELD. Gentleman yields back.

At this time, the Chair recognizes the gentlewoman from Florida, Ms. Castor, for 5 minutes.

Ms. CASTOR. Thank you, Mr. Chairman, and thank you to our panelists today.

I have to say like the ranking member, Chairman Whitfield's comments got my attention at the beginning of the hearing. I know he is a zealous advocate for his district, and, Mr. Chairman, if you

believe that we need to broaden the authorities of FERC and the Department of Energy to more directly address carbon pollution, and to reduce carbon pollution and make it more explicit as part of their missions, I would be willing to work with you on that.

Mr. WHITFIELD. Thank you.

Ms. CASTOR. But you mentioned the—at the outset the Energy Policy and Conservation Act which is the bedrock—one of the bedrock components of energy laws in America, and I do believe it was signed into law by President Ford and not President Carter. So the history of energy efficiency has always been bipartisan because that—the goals of that law were to increase production and supply, energy supply, to reduce demand. We have done a good job on those things. You look around America now, and we have robust energy supplies, and we are going to be a net exporter. We have done this while being able to reduce demand. And Mr. Olson left, but I can talk about a hot and humid climate as well, and we rely on air-conditioning, and we need to make sure that we have both, we have a robust supply, but that it is cost efficient for all of our neighbors. The law also said: America, you have the tools to address an energy crisis, and then importantly it said: Let's unleash American innovation through energy efficiency and conservation. Look what has happened in our fuel economy standards for cars, and now we are setting goals for trucks. This has been an enormous success for Americans, for consumers, for the auto industry. It has put a lot of money back into the pockets of my neighbors at an important time.

Also the businesses that have been created across our great Nation in conservation and lighting, building, building on a lot of the bipartisan efforts here with Mr. Welch, Mr. McKinley, Mr. Kinzinger. I have been focused on benchmarking buildings across the country so that we can measure this and hold folks accountable.

This—while climate change and carbon pollution may not be the overriding goal of our energy efficiency agency, it does dovetail nicely with their mission while lowering costs for consumers, addressing the impacts of climate. I know there has been discussion about cost and do these energy efficient appliances, do they—are they really cost efficient? And I think when you look at the decades gone by you, the overwhelming answer is yes. This has been incredible to create jobs, lower energy bills for so many of our neighbors. And now it is even more important now that we understand the impacts of the changing climate.

And when you talk about costs, if we do not do some things to become more efficient and reduce carbon pollution, the costs are going to be enormous. They are going to be astronomical. Already increases in property insurance, flood insurance; we are having to make investments in water supply due to droughts and sea level rise. We are anticipating more intense lightening storms. Tampa is known as the lightening capital of the world, and I am not just talking about the Stanley Cup finals that begin tonight. But think about that. If electrical storms begin and they are more intense, the risk that we put our businesses and neighbors at.

I think part of the problem, Mr. Chairman, is the old traditional electric utility model on selling as much energy as we possibly can

simply doesn't fit the modern challenges we have today. We have got to build in additional incentives to become more efficient. And based upon the evidence of the past that it helps create jobs, it helps lower costs for our neighbors, we can do this.

So I don't have any questions today. Thank you for letting me go on on that, Mr. Chairman. You inspired me to make some comments, and I look forward to working with you on this draft.

Mr. WHITFIELD. Well, I am glad I got you excited there, Ms. Castor.

At this time I would like—inspired. Maybe I should say inspired. This hasn't really been a good afternoon for me, truthfully.

At this time I would like to recognize the gentleman from Virginia, Mr. Griffith.

Mr. GRIFFITH. Well, I got inspired too. I have got to tell you, Mr. Parkinson, I am really curious. What is the worst-case scenario offense that you all would investigate?

Mr. PARKINSON. Worst case offense? Manipulating the energy markets.

Mr. GRIFFITH. OK. And I was a little surprised in regard to the Brady information, and you said what would be helpful, inculpatory information would be helpful. Yes, it is helpful. If you are trying to defend somebody who is being accused of doing something improper, having all the information is helpful. And you said, well, this would be you like an open file policy. Well, I always found in my years of lawyering that the really good prosecutors, and I don't know how you all did it wherever you were, but the really good prosecutors, unless it was a serial murderer, child sex offender, something really heinous, they gave you the open file because it helps you reach a settlement.

And so I don't understand the resistance. I am having a real hard time sitting here listening to you talk about how there is—sometimes this is our problem, giving people information so that you can reach a settlement is a problem. That is not a problem. That is the way you want to get a lot of these cases resolved. It would make you all more efficient. You could get on to bigger problems. It is the people that you are not talking to. And then you seem to have a problem with giving a witness their own statement.

How in the world is that not just regular course of order? I mean, maybe it is just a Southern thing or a small town thing, but I think if I make a statement to you, I ought to have a copy of my statement.

Now, if you want a court order that says I can't talk to anybody else, that is fine. But I am going to remember most of my statement to the ability that if I am going to go out and try to collaborate or get our stories straight, I am going to do that without a written transcript of my statement, but if I want to be able to show my lawyer what is going on, or maybe get advice from a second lawyer, that seems to me to be reasonable. Can you answer any of these questions for me? And I got more.

Mr. PARKINSON. Yes. Sure. I would love to, Congressman. Let me start with the first one about this is not a hide-the-ball kind of process.

Mr. GRIFFITH. Because that is what you made it sound like.

Mr. PARKINSON. If I made it sound that way, then I misspoke or was misinterpreted.

We are talking about a pretty narrow issue about Brady, which is what the amendment does. We have a process at FERC and FERC enforcement where we lay out in extraordinary detail for the subjects of our investigations everything we have concluded, both factually and legally. We lay it out often in preliminary findings letters. They go on for dozens and dozens of pages, unlike any other Federal agency that I am aware of. This is—we have regular communications with counsel throughout the investigation. We—and during the—near the end stages of the investigation we lay out our preliminary findings. They have an opportunity to submit with no limitation on length. Whatever they want to submit. There is two other additional opportunities to do that.

Mr. GRIFFITH. But I guess my problem is your testimony earlier was you were opposed to some of the language that does just what you are saying you do. Why would you be opposed to something if you agree with me that it is the right thing to do and the fair thing to do, why would you be opposed to it?

Mr. PARKINSON. There is a significant difference between laying out everything we have concluded and laying out during the course of an investigation, which is what this is talking about. This is not the adjudication phase. This is not the phase where we brought charges and there is a process in place.

Mr. GRIFFITH. Well, let me go there because I am—I could probably go on for an hour. I am troubled about so many things. So let me get this straight. You all have a process—I mean, I think the bill ought to be expanded, Mr. Chairman. You all have a process by which the Commissioners are involved in the investigation, because you then establish an attorney/client relationship with the Commissioners, and then, those same Commissioners are judging the case.

Now, let me give you an analogy that I think is fairly close. You got a building official who is investigating somebody who may not have followed the building code in building a building. And they go talk to the judge in advance and say, how do you think we ought to investigate? How do you think we ought to lay out our case on this? And then you expect that the defendant, or the person who is accused, whatever terminology you use, thinks they are getting a fair hearing when they walk in front of the judge who has an attorney/client relationship with the person who is prosecuting them? How does that work? How is that fair? How is that due process?

And I am running out of time, but you said a couple times that, you know, that some of these things could be burdensome. Yes. Due process is burdensome. Liberty is hard to hold on to. And having the Government not take your property, your money, without a fair hearing is burdensome. But it is the American way. And so next time you start talking about how these requirements might be burdensome, you might want to think about in the real world, people hearing that think that you have got some kind of cloak-and-dagger operation going on that is not a due process or fair system.

And I am out of time. So I yield back.

Mr. RUSH. Gentleman yields to me a few seconds?

Mr. WHITFIELD. Sure.

Mr. RUSH. I want to yield—you don't want to respond to that—Mr.——

Mr. PARKINSON. Sure. It would take a while. I mean, burden—we recognize that there are burdens. I am not complaining about burdens. We believe deeply in due process. I think the example—there is nothing unique. I think one thing that is really critical to understand is there is nothing unique about FERC, and the notion that the Commission—in particular on the Commission, the Commission wears two hats. You can't—unless you are going to separate the Commission, which, again, is a bipartisan Commission, there are five members.

Unless you are going to say the Commission has no role in enforcing—in administering its own enforcement program, you can't isolate the Commission from the investigative and from the enforcement process. You can't. I guess you could legislate that, but it would be—it would be different than every other Commission process in the Federal Government.

Mr. WHITFIELD. Well, you know, Mr. Parkinson, I think——

Mr. PARKINSON. And just one other point if I might——

Mr. WHITFIELD. Yes, and I think what would also be helpful in 4212, which is what we are discussing, that we have an opportunity to sit down with you and some others and Mr. Griffith and just go in more detail.

Mr. PARKINSON. I would be delighted to do that.

I just wanted to make one more point if I could, Mr. Chairman, and that is—and that is ultimately everything the Commission does is reviewable by the Federal courts. If there is a trial within FERC, that can be appealed to the DC Circuit or Court of Appeals. If the Commission orders—issues an order assessing a penalty as it did last week in one of our manipulation cases, we go straight to district court, and then we are in a Federal court process and—and the ultimate—ultimate say belongs in the Federal court. So it is not an adjudication that is unreviewable.

Mr. WHITFIELD. Well, like I said, we look forward to having further discussions with you about it. Because 4212 was the subject of this, and there are some language in here that seems pretty judicial normal process to us, due process, and so we will discuss that more with you and others.

At this time I would like to recognize the gentleman from Texas, Mr. Green, for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman.

Secretary Hogan, in 2007 Congress passed the Energy Independence and Security Act. EISA in 2007 was the last energy package this body has passed. In that legislation there is a provision under—and it has already been mentioned—Section 433 that required the reduction of fossil fuel-based energy consumption. Section 433 required Federal buildings to eliminate 100 percent of fossil fuel consumption by 2030. In October of 2010, the Department of Energy issued a notice of proposed rulemaking to begin the rule propagation process.

What is the current status of that rulemaking?

Ms. HOGAN. The most recent action on that rulemaking that is public is that we put out a supplemental notice of proposed rulemaking in the fall and took comment on that. And in that supple-

mental notice, what we proposed was any number of ways to provide the Federal agencies with increased flexibility in terms—in how to meet the requirements of Section 433.

Mr. GREEN. OK. There had been considerable debate on regarding the length of time that DOE took to begin the rulemaking.

What issues has DOE faced while attempting to draft this rule?

Ms. HOGAN. I think we are looking to provide, you know, good flexibilities to the Federal agencies as they would, you know, be required to meet the fossil fuel requirements as—that which, you know, get increasingly more stringent as you walk through time. You know, this is a provision that looks at major renovations as well as our buildings, sort of newly constructed buildings, but we do see it playing a really major role with our major renovations. So really being thoughtful about the types of flexibilities that we could offer up to the Federal agencies has been sort of the big subject of solving that we needed to do.

Mr. GREEN. This last March, the White House issued an executive order entitled Planning for Federal Sustainability in the Next Decade. The executive order requires about 2025 no less than 30 percent of the electricity energy consumed is attributable to renewable energy.

Does DOE consider the executive order an admission at the administration that 100 percent by 2030 of no fossil fuel is not attainable?

Ms. HOGAN. No. We view these as complementary tools, and that the executive order which would go through 2025 is a management framework for the Federal agencies through 2025 of ambitious but achievable goals.

Mr. GREEN. I think the reason 433 is part of the package is that—I think all of us would hope that we would not need fossil fuel by 2030, but, you know, that includes natural gas also, and typically that is going to be the fuel of the future. We can do wind power, and in Texas we are doing a lot of wind. I wish we could do solar. We could use some help from our legislature sometime to do what we have done with wind, but I just don't think that by 2030, 100 percent without, you know, fossil fuels is possible.

I would like to discuss natural gas furnaces. In 2007 the DOE made the first attempt to—in more than 20 years to increase efficiency standards for indoor furnaces. And I think it is safe to say there has been some disagreement over the proposed rulemaking standard setting.

Where does the DOE rulemaking process stand today?

Ms. HOGAN. Again, we have a proposed rule out right now for comment. The comment period remains open. We were asked to extend it. We have extended it. And we are actively looking to get as many comments as we can so that we can really look at each and every one of those comments seriously and then take the next steps with—

Mr. GREEN. Do you know if there is any groups that DOE hasn't talked to about the—regarding the proposed rule? I think that might be a smaller group than who you have talked to.

Ms. HOGAN. No, we have certainly talked with a lot of stakeholders around the furnace rule, and at many levels of the agency.

Mr. GREEN. Do you have any possible effective date for the new gas furnace rule?

Ms. HOGAN. You know, typically a rule is effective within 3 years of it going final. Maybe this one is longer. But we will get back to you with that timing. I mean, we are proceeding with our rule-making process. Once we complete the public comment process, take the time that we need to take to go through all the comments that will come in, and then put together a final rulemaking.

[The information follows:]

The compliance year considered in the analysis for the proposed rule to revise the energyconservation standards for non-weatherized gas furnaces is 2021.

Mr. GREEN. Thank you.

Mr. Chairman, I know I am out of time, but I appreciate this section of our energy bill on efficiency, and I am glad we are reworking some of the things may not—it may be have been an earlier law that may not be really practical in 2015. Thank you.

Mr. WHITFIELD. Well, thank you. Yes, we have a long way to go, but I think we are making progress, and these types of hearings certainly help.

At this time I recognize the gentleman from Illinois, Mr. Kinzinger, for 5 minutes.

Mr. KINZINGER. Well, thank you, Mr. Chairman. And to our witnesses, thank you for being here. We appreciate it.

First to Assistant Secretary Hogan, we have heard from our manufacturing communities that when it comes to developing new efficiency standards they prefer a consensus-driven approach that includes input from Government, from stakeholders, and NGOs as a preferred approach to developing efficiency standards more than a formal notice and comment method.

Will DOE commit to a more consensus-driven approach as it moves forward with new standards?

Ms. HOGAN. We also really do like the engagement that we can get through what we call negotiated rulemakings. This is something that the agency has taken on in the last several years where we have stood up a Federal advisory committee, a FACA, and then through that, we can participate in a negotiated rulemaking process. That is a little bit different than a consensus—some of the consensus agreements that have been brought to us in the past where DOE isn't actually a party to the conversation, but the stakeholders get together, come to consensus, and then bring it to us.

Certainly this is one where we can be at the table bringing all of our analytical abilities to the table and having very robust conversations around what can really work for everybody. We are quite excited that over the last several years, we have been able to participate in nine rulemakings through such a process, and four of them have been brought to completion, and we really are committed to using this tool wherever it makes sense.

Mr. KINZINGER. You know, obviously, I think the more we can strive to consensus. So several of DOE's recent final standards have been challenged in the courts by manufacturers.

Does this suggest a flaw in the current rule development process?

Ms. HOGAN. We certainly, you know, are being challenged in the courts. We do not think that suggests a flaw in the current rule-making process. We do, again, to your earlier question, we do believe that a negotiated rulemaking process does help in getting a lot of information on the table. But I also think that the traditional process really can work. Because we are also working hard to run the traditional process in as open and as transparent a way as possible, putting really good information on the table, holding public meetings, walking people through our analysis assumptions, and also—

Mr. KINZINGER. All right. Well, let me—I have been lucky enough to work with Congressman Welch to have some sections included in the discussion draft in relation to ESPCs and—in order to clarify their authority. And the committee has been very supportive of these efforts so far, which I appreciate.

In relation to the current use of ESPCs and UESCs, do you have any idea what percentage of the Federal energy intensity reduction goals is a result of their use?

Ms. HOGAN. So the Federal Government has a long history of improving Federal energy intensity, and let me just say that performance contracting has played a really important role. You know, currently, we have got a \$4 billion challenge for investment that the Federal agencies are working toward. We have got \$2 billion of that \$4 billion in place, and will continue for that next \$2 billion. And as you can imagine, that is an important amount of money to be bringing into the Federal Government through third-party financing and not having to look to appropriations.

Mr. KINZINGER. OK. And we have been told that the administration is currently trying to use a ESPC for data center consolidation.

Could you update us on the status of that?

Ms. HOGAN. Just—so the Department of Energy is—you know, does have a goal as part of this performance contracting challenge. The Department of Energy has done a number of projects. It is considering this data center project as one of its projects, and I don't know sort of the latest, but we should have some information on that soon.

Mr. KINZINGER. OK. And then, Mr. Quinn, just very briefly, wind power and other renewable resources get a very generous Federal credit of about \$23 per megawatt hour. It is very generous, and so generous that wind generators bid into the market at zero sometimes or they often bid in at a negative price. That is, the taxpayers pay them so much that they the market to take their electricity. The discussion draft requires FERC to consider how such market distorting incentives impact wholesale markets.

So just quickly, how often does wind power bid at or below zero in the PJM market, and what effect does this have on other generators in the market?

Mr. QUINN. Congressman, I don't have data on how often that happens. We would be happy to take the question for the record.

With regard to how that affects the rest of the market, various markets have taken steps to automate the process so that the prices are clear and reflective of wind doing that, and that when prices get low, that wind can be curtailed or other generations can

be curtailed based on price rather than some manual process, and those things ensure reliability.

Mr. KINZINGER. OK. Thanks, Mr. Chairman. I yield back.

Mr. WHITFIELD. At this time I recognize the gentleman from Ohio, Mr. Johnson, for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. I appreciate the time and thank the panel for being with us today.

Dr. Hogan, continuing with you, a few questions here, we have heard complaints from various constituencies who have interpreted the Section 433 fossil fuel ban as limiting, and ultimately prohibiting, the adoption of highly efficient technologies using natural gas in Federal facilities such as combined heat and power, fuel cells, and waste heat recovery systems. Based on the express statutory language of Section 433, would you agree with this interpretation?

Ms. HOGAN. I spoke a little earlier to some of the flexibilities that we think we have been able to provide the Federal agencies as they would respond to Section 433 once there would be a final rule. And we have figured out how to allow the Federal agencies to take advantage of things like combined heat and power as the fossil fuel rule would be in effect. So we do think we have been able to do a good job in terms of finding a good balance for this section that allows agencies to take advantage of these technologies.

Mr. JOHNSON. OK. Well, a follow-on. Does the Department of Energy measure the cost implications to homeowners of increasingly stringent model building energy codes? And, if so, what are those costs?

Ms. HOGAN. Yes. The Department of Energy participates in the code process in a number of ways. One is we will take proposals to the code body that is responsible for updating the code approximately every 3 years, and we certainly do cost-effective analyses on the measures that we think are ripe to be considered as part of an update cycle. And then the code body votes. So it is sort of hard to speak holistically about those costs. Each measure is a little bit different. Certainly we look to things that are life cycle cost effective, and we think that that is a great metric to use because it is very well-aligned with taking a mortgage out on a home because then you can see that the total cost of ownership leaves the homeowner in a cash flow positive—

Mr. JOHNSON. Can you take a question for the record, then, and get us that information on what some of those costs would be in that analysis?

Ms. HOGAN. In the recent code cycle?

Mr. JOHNSON. Sure.

Ms. HOGAN. Sure.

[The information follows:]

COMMITTEE: HOUSE ENERGY AND COMMERCE, ENERGY AND
POWER SUBCOMMITTEE

HEARING DATE: JUNE 3, 2015

WITNESS: KATHLEEN HOGAN
PAGE: 74

INSERT FOR THE RECORD

The U.S. Department of Energy (DOE) Building Energy Codes Program (BECP) supports the development and implementation of model building energy codes and standards for new residential and commercial construction. These codes set the minimum requirements for energy-efficient building design and construction and impact energy use over the life of the buildings. Building energy codes are developed through consensus-based public processes. DOE participates in the code development process by recommending technologically feasible and economically justified energy efficiency measures for inclusion in the latest model codes using a publicly-reviewed cost effectiveness methodology. Ensuring the cost-effectiveness of model code changes also encourages their adoption and implementation at the state and local levels. An analysis evaluating the national cost-effectiveness of the residential provisions of the 2015 IECC (International Energy Conservation Code) was conducted by DOE through the Pacific Northwest National Laboratory (PNNL), which is accessible here:
https://www.energycodes.gov/sites/default/files/documents/2015IECC_CE_Residential.pdf.

An example of an application of DOE's cost-effectiveness methodology was a proposed code change for reflective roofing materials which was developed for the most recent (2015) development cycle of the International Energy Conservation Code. Using cost and savings data from a variety of independent sources, DOE's analysis shows positive annual savings.

The following results table was included in the proposal which was posted on DOE's website and publicly reviewed before being submitted to the code development organization.

Climate Zone	Example City	Heating System Type	Net (Heating and Cooling) Annual Savings per 1000 ft² of roof area
2	Houston TX	Heat Pump	\$22
		Natural Gas	\$24
3	Atlanta GA	Heat Pump	\$15
		Natural Gas	\$17
Assumptions: R-30 insulation, 0.70 Solar reflectance, 0.75 thermal emittance, 12 cents/kWh electricity, \$1.00/therm natural gas, 3.5 COP cooling, 2.0 COP heat pump heating, 80% AFUE gas heat.			

Mr. JOHNSON. OK. Thank you.

You know, we are coming out of the worst economic downturn since the Great Depression. Housing is just barely coming back and families are still living on strict monthly budgets. Don't you think that any energy mandates that are imposed on homeowners should be cost effective? I mean, it seems to me a 10-year payback seems completely reasonable. What are your thoughts?

Ms. HOGAN. You know, I think we are in the area where we think multiple ways to look at cost effectiveness makes sense because people make decisions a little bit differently. And we certainly—

Mr. JOHNSON. People at home make decisions with their checkbook around the dining room table. That is how they make decisions.

Ms. HOGAN. Absolutely. But I think also when you think through that most homes are financed these days through mortgages that a life cycle approach also makes sense in that context, and particularly when you align it with the other cost that go with—

Mr. JOHNSON. Wait a minute. Hold on. You just lost me there for a second. We are talking about the monthly budget. The energy efficiency of their home doesn't affect their mortgage payment. We are talking about the monthly out-of-pocket expenses as it relates to some of these energy mandates. So help explain. You lost me for a second.

Ms. HOGAN. So what a life cycle analysis helps you do is understand so what is cost effective sort of over the lifetime of a measure, and then you can put that on a monthly cash flow bases also with the mortgage that goes with the home. Because as you are saying, the home may cost a little bit more up front, but if—and so that gets rolled into your monthly mortgage. But if your energy bill is then lower on a monthly basis and then the homeowner is better off on a monthly basis from a cash flow perspective, then truly that is what leaves them in a good place from their pocketbook.

Mr. JOHNSON. No, homeownership is something that most Americans aspire to. And the cost of that mortgage in the early years of a new family, that is what—that is what makes the difference. That is what determines whether or not many people can get a mortgage and own a home or not. So I am—I am not sure—I understand the life cycle perspective, and I understand why that would be—that might be meaningful to people inside the Washington Beltway, but for the people that are writing the check and trying to get into their new homes, I am not sure that that is an argument that sells.

Ms. HOGAN. Well, we would be happy to talk with you about that further. I mean, the—you know, reducing their energy bills is also an important part of people's sort of monthly budgets as well, and I think the benefits that you get there really do help these families.

Mr. JOHNSON. Mr. Chairman, I yield back.

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

Mr. FLORES. Thank you, Mr. Chairman.

Dr. Hogan, there were three quotes that I wrote down from your testimony and your answering of some earlier questions.

The first one was that you standards are technically feasible, and, number two, that they are economically justified. The second thing you said is that the DOE is open to the rulemaking process. And the third is just a more detailed example, said the gas furnace net benefits are about \$16 billion.

Look, we all believe in efficiency. We believe in saving energy. We believe in saving money. But we are getting to the point of diminishing returns. And so if you look at the average house, it has been estimated that the recent standards that have been proposed by DOE raise the cost of a house by \$7,000. So let's say you have a house that started at \$50,000 and then you overlay your standards onto it that raise the cost to \$57,000. Who does that hurt the worst? Who are the typical buyers for that \$50,000, now \$57,000 home? Well, it is lower-income America. And so if the average payback is like forever. I mean, you talk about the life cycle of a house, most people don't stay in a house 17 years, which is the life cycle—or the payback periods of many of the new rules that you proposed. In some cases there is no payback.

And so the policies that the DOE has adopted, although they seem altruistic, are hardest on low-income and lower-middle-income Americans. So what winds up happening when we price those people out of a house, or let's say they are even in a multifamily unit. If they are in a condo, they can't buy the condo. Or if they are in an apartment they can't afford the rents because the rents have gone up because the developer had to pay more for it. So who gets hurt? And what happens when that—because they are hurt. They wind up in a low-efficiency, dumpy apartment or a home that is low efficiency and nobody has been helped. Everybody has been hurt.

You know, you talk about the furnace situation. I mean, some of the furnace standards today are set up in such a way where you cannot retrofit an older house with some of the newer technology furnaces. And it seems like even though I have heard the word "flexibility" a lot from your testimony, it seems like DOE does seem to be very rigid and not really looking at the real world impact on real families about what is happening.

Now, you could do this to me all day long. It doesn't hurt me. I have converted most of my home to LED. I produce about 50 percent of my annual power for solar-generated electricity. I have got high-efficiency everything, and I have swapped it out continuously. So it doesn't hurt me, but it hurts the people that, you know, we think the Government is trying to protect.

And the contracting community, the manufacturing community, is telling me that DOE has been—is not listening to those arguments. So tell me that you are listening to those arguments, number one; and, number two, what are you doing about it?

Ms. HOGAN. So let me clearly say to you that we do listen to those arguments. We make sure that our work takes in what is going on in the low-income communities. And, again, you sort of raised two issues here, one around the building codes and the cost of a new home, and you have raised issues around the furnaces. So, I mean, let me repeat that our—

Mr. FLORES. The furnace is more of a detailed example, but keep going.

Ms. HOGAN. Yes. That the furnaces is—you know, it is an open comment period that we have right now, and we want all and every comment that we can get so that we can make this rule be the best that it can be for all the households—

Mr. FLORES. So let's dig into that for a minute. So, you know, we have just told you what folks are telling me. So what would your change be to your rules to deal with that comment?

Ms. HOGAN. You know, we do have to make data-based decisions. What we ask for as we go out for public comment is—first we present our analysis. We present it for households across the country. We present it with a special analysis looking at low-income and elderly households.

Mr. FLORES. Do you look at what happens when you price them out of the market and you have kept them in a low-efficiency environment?

Ms. HOGAN. Let's sort of separate the furnaces. So what do we do around building codes again? The Federal—DOE does not make the national building codes for the country. We take proposals that we have analyzed to an independent code body, and then the independent code body, you know, runs a process by which they come up with the next updated—

Mr. FLORES. But I think you know that—I think you candidly know if we peel the layers back from this, that DOE is really pushing these code bodies to adopt your recommendations. It is not just these are recommendations anymore, it is, “We want you to do this.” You know, “We are strongly advocating that you do this.”

Ms. HOGAN. We are a stakeholder in a many-party process. And we believe what our role is, and what we are committed to do is to take good data-driven analysis to that process so people can have that conversation. So that is what we are doing.

Mr. FLORES. Well, I have run out of time. I hope that is what is really happening. I am just not hearing the same thing that—from the real world that I am hearing from you. So I hope that we can have a better discussion later.

I yield back.

Mr. WHITFIELD. At this time I recognize the gentlelady from North Carolina, Ms. Ellmers, for 5 minutes.

Mrs. ELLMERS. Thank you, Mr. Chairman. And thank you to our panel for being here today.

I do want to take a moment, Mr. Chairman, to start off and thank you and the committee staff for working with me and my colleague, Jerry McNerney, on the promotion and implementation of grid innovation technologies, especially the inclusion of the smart grid capable appliances on energy guide labels. I believe we need to promote energy efficiency, but in a transparent way, and with industry and stakeholder input. Energy efficient technology should benefit consumers and be affordable to working American families, very much like the conversation we were having just a moment ago.

So with that, Mr. Chairman, I will go ahead and ask my questions.

Dr. Hogan, I have two questions for you, and in the interest of time I am going to try to—I have an example I want to give you first. You know, the DOE's process rule requires DOE to use quali-

tative and quantitative methods that are, quote, “fully accessible to the public” and that—and that produce results that can be, quote, “explained and reproduced.” DOE is not using third party validated models for information, thus the only way to effectively validate the models is by allowing full access by the stakeholders. DOE has violated this requirement by relying on the analysis determined through models that are not fully accessible to stakeholders.

And as an example, I will just use this. In the automatic commercial ice maker ruling of January 2015, DOE relied upon a model developed in the mid-1990s that had few minor updates. But the DOE, Navigant, claimed was fully protected by copyright. DOE refused to allow stakeholders access to the model to run their own data analysis or validations, only allowing the submission of the data to DOE’s consultants.

Why is the DOE not following its own process rule and what can be done to ensure the agency adheres to its own process rule?

Ms. HOGAN. Certainly we do strive to be as transparent and open as possible. At the same time, one of the things we also have to do is protect proprietary information that business does give us as part of the rulemaking process. You know, one of the things that we do do so that we can have access to the best information that we can is organizations like Navigant under contract to DOE, they go out and they do do interviews with manufacturers, and manufacturers provide information that can be very important to their own, you know, business objectives, and that type information, of course, is then held in a way that we cannot—I mean, it is business sensitive. So we do have to protect—

Mrs. ELLMERS. Right.

Ms. HOGAN [continuing]. Their proprietary information.

Mrs. ELLMERS. So, but along that line, do you see a way forward that we can actually ensure that this process is moving—I mean, that—that we are ensuring that the agency is adhering to this? I mean, is there something that you see that we can do that can change this?

Ms. HOGAN. We are happy to continue that conversation with you because, again, we want to be as transparent and open as we can and sharing of the data that we get so people can see what our assumptions are and help us make these rules be the best.

Mrs. ELLMERS. Good. I would appreciate that, and our office, we will work with you and committee on this then. My last question is, by comparing the Department’s current life cycle costs, which we have had this discussion, cost analysis, issued by the proposed rule for the life cost analysis DOE issued in the 2011 direct final rule, some disturbing inconsistencies become evident. For example, I will use this example: The Department maintains that the cost of buying and installing a noncondensing furnace increased by approximately 25 percent between 2011 and 2014, even though these are mature products that have been on the market for decades. Meanwhile, the Department asserted that the more technically sophisticated condensing furnaces increased by only 9 percent during the same period.

Based on these questionable numbers, the cost differential between the current standard furnace and the proposed standard furnace has dropped by nearly 30 percent between the two

rulemakings. If the Department used the 2011 cost estimates, in its current analysis, wouldn't that undermine the economic case for the proposed energy efficiency standard? It is a word problem apparently. I apologize for the numbers. But I guess the point is, are we moving in the right place so that we are making sure that these products are cost efficient for the consumers, but at the same time, the effectiveness is there.

Mrs. HOGAN. Certainly that is what we are really striving to do; and, again, I would point to the furnace rulemaking as one of the places where we are trying to be absolutely as transparent and as engaged with stakeholders as we can be. Again, we have held multiple public meetings so that we can go through the details of the DOE analysis, you know, as much as stakeholders want to so that they can understand what we have done. And we have had multiple meetings, multiple stakeholder engagement, extended the public comment period. And, again, we want to get as much good data from people as possible so that we can make this be a very good rule for people.

Mrs. ELLMERS. I would like to continue to work with you on that as well then. Thank you, Mr. Chairman. I yield back.

Mr. WHITFIELD. Well, thank you. And we appreciate you three witnesses being here with us today. We have a lot of work to do; and as you can tell from the questions on both sides, there are a lot of concerns about the impact of these regulations in the pocket-books of many people in America. I mean, I just think 50 years ago, no one would have imagined that there was an agency of the Federal Government here in Washington, DC, making all these decisions about all of this litany of appliances and what can be used and what cannot be used. It is really kind of amazing, but we thank you very much, and we are going to recess the hearing until 10:15 in the morning, at which time we will reconvene for the second panel. So we look forward to working with you all, and thank you for being here.

[Whereupon, at 4:48 p.m., the subcommittee recessed, to reconvene at 10:15 a.m., Thursday, June 4, 2015.]

[Material submitted for inclusion in the record follows:]¹

PREPARED STATEMENT OF HON. FRED UPTON

Today's hearing continues what is shaping up to be a banner week for our Architecture of Abundance efforts. Much of our draft bipartisan energy bill is related to the American energy renaissance, and several of its titles seek to create policies that allow the Nation to realize the full economic and geopolitical potential of our growing energy abundance. In Southwest Michigan and all across America, folks are better off because of our good energy fortune. But our draft bill is not only about new energy sources, it also addresses accountability and improved operation of existing energy markets as well as increases in energy efficiency. That is the subject of this two-day hearing.

In particular, we have carefully reviewed FERC's role in energy markets and see some areas where changes would be beneficial. For example, we have learned from experience that the provisions in the 2005 energy bill expanding FERC's enforcement authority, as well as FERC's order establishing regional transmission organizations, have created a number of unintended consequences for electricity markets and have not kept up with some of the changes in the industry. Our discussion draft

¹The discussion draft of Title IV: Energy Efficiency and Accountability, Subtitle A—Energy Efficiency has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/BILLS-114pih-SubtitleA-EnergyEfficiency.pdf>.

seeks to address these issues while maintaining FERC's enforcement and oversight role. The Public Utility Regulatory Policies Act of 1978 is also in need of updates to better reflect current electricity markets, technologies, and resources, and our targeted provisions seek to do just that.

On the subject of energy efficiency, our discussion draft begins with America's largest energy user—the Federal Government. And there is room for improvement, ranging from greater use of energy savings performance contracts to improved energy efficiency at Federal data centers, and several other ideas contained in our discussion draft.

We also seek improvements in energy efficiency programs affecting manufacturers and consumers. This includes changes to the Energy Star Program and the Energy Guide labels, and important clarifications to the Federal role in establishing voluntary State and local building energy codes.

I look forward to a constructive and bipartisan discussion of these issues so that the accountability and energy efficiency provisions strengthen our energy bill and provide benefits for energy producers and consumers. Our plan embraces our newfound energy abundance, and we will continue to advance this vision.

[DISCUSSION DRAFT]

1 **TITLE IV—ENERGY EFFICIENCY**
 2 **AND ACCOUNTABILITY**

3 **Subtitle B—Accountability**

4 **CHAPTER 1—MARKET MANIPULATION,**
 5 **ENFORCEMENT, AND COMPLIANCE**

6 **SEC. 4211. FERC OFFICE OF COMPLIANCE ASSISTANCE.**

7 The Federal Power Act (16 U.S.C. 792 et seq.) is
 8 amended by—

9 (1) redesignating sections 320 and 321 as sec-
 10 tions 321 and 322, respectively; and

11 (2) by inserting after section 319 the following
 12 new section:

13 **“SEC. 320. OFFICE OF COMPLIANCE ASSISTANCE.**

14 “(a) ESTABLISHMENT.—There is established within
 15 the Commission an Office of Compliance Assistance (re-
 16 ferred to in this section as the ‘Office’). The Office shall
 17 be headed by a Director, who shall be selected by, and
 18 report solely to, the Commission.

19 **“(b) DUTIES OF DIRECTOR.—**

20 **“(1) IN GENERAL.—**The Director of the Office
 21 shall promote improved compliance with Commission
 22 rules and orders by—

1 “(A) making recommendations to the Com-
2 mission regarding—

3 “(i) the protection of consumers;

4 “(ii) market integrity and support for
5 the development of responsible market be-
6 havior; and

7 “(iii) the application of Commission
8 rules and orders in a manner that ensures
9 markets are not impaired and consumers
10 are not damaged by inconsistent applica-
11 tion;

12 “(B) providing entities regulated by the
13 Commission the opportunity to obtain timely,
14 including real-time, compliance guidance; and

15 “(C) providing information to the Commis-
16 sion and Congress to inform policy with respect
17 to energy issues under the jurisdiction of the
18 Commission.

19 “(2) REPORTS AND GUIDANCE.—The Director
20 shall, as the Director determines appropriate, issue
21 reports and guidance to the Commission and to enti-
22 ties regulated by the Commission, identifying and
23 monitoring market practices, proposing initiatives,
24 and addressing potential improvements to both in-
25 dustry and Commission practices.

1 “(3) OUTREACH.—The Director shall promote
 2 improved compliance with Commission rules and or-
 3 ders through outreach, publications, and, where ap-
 4 propriate, direct communication with entities regu-
 5 lated by the Commission.

6 “(c) STAFFING.—Not later than 60 days after the
 7 date of enactment of this section, the Office of Compliance
 8 Assistance shall have no fewer than 10 full time employ-
 9 ees. Such personnel shall be drawn, if possible, from Fed-
 10 eral employees then working at the Commission.”.

11 **SEC. 4212. IMPROVING TRANSPARENCY IN FERC INVES-**
 12 **TIGATIONS.**

13 Not later than one year after the date of enactment
 14 of this Act, the Federal Energy Regulatory Commission
 15 shall promulgate a final rule that provides that in any in-
 16 vestigation, or any proceeding in which the Commission
 17 may assess a civil penalty, the Commission shall—

18 (1) not later than 7 days after the Commission
 19 issues a preliminary findings letter with respect to
 20 such an investigation or proceeding, disclose to any
 21 entity or person subject to such investigation or pro-
 22 ceeding any exculpatory materials, potentially excul-
 23 patory materials, or materials helpful or potentially
 24 helpful to the defense of such entity or person, in-
 25 cluding by ensuring disclosure of materials in the

1 possession of other Federal or State agencies or non-
 2 governmental entities (including State regulatory au-
 3 thorities, Commission-approved regional trans-
 4 mission entities, and market monitors) assisting the
 5 Commission in such investigation or proceeding;

6 (2) provide any entity or person subject to such
 7 an investigation or proceeding access to the official
 8 transcripts of any deposition involving such entity or
 9 person within a reasonable period of time after the
 10 conclusion of such deposition;

11 (3) require that in any such investigation or
 12 proceeding, all communications regarding the merits
 13 of the investigation or proceeding between the inves-
 14 tigatory staff of the Commission and the advisory
 15 staff of the Commission shall be in writing and in-
 16 cluded in the formal record of the investigation or
 17 proceeding; and

18 (4) allow an entity or person subject to such an
 19 investigation or proceeding to communicate with the
 20 Commissioners regarding the substance of settle-
 21 ment considerations to the same extent as such com-
 22 munications occur between the Commissioners and
 23 the investigatory staff of the Commission.

1 **CHAPTER 2—MARKET REFORMS**

2 **SEC. 4221. EVALUATING AND IMPROVING WHOLESALE**
 3 **ELECTRICITY MARKETS.**

4 (a) IN GENERAL.—Not later than 30 days after the
 5 date of enactment of this Act, the Federal Energy Regu-
 6 latory Commission shall direct each regional transmission
 7 entity to develop, in consultation with the stakeholders of
 8 the regional transmission entity, submit to the Commis-
 9 sion, and implement a plan that—

10 (1) describes how the current market rules,
 11 practices, and structures of the regional trans-
 12 mission entity meet, or fail to meet, the criteria es-
 13 tablished in subsection (b);

14 (2) identifies specific actions to be undertaken
 15 by the regional transmission entity to revise or
 16 amend the market rules, practices, or structures of
 17 the regional transmission entity to meet the criteria
 18 established in subsection (b); and

19 (3) establishes a timeframe for implementation
 20 by the regional transmission entity of the specific ac-
 21 tions identified under paragraph (2).

22 (b) CRITERIA.—The market rules, practices, and
 23 structures of each regional transmission entity shall, as
 24 applicable—

- 1 (1) result in just and reasonable rates for rate-
- 2 payers;
- 3 (2) properly value generation facilities that have
- 4 reliability attributes that include—
- 5 (A) operational characteristics that enable
- 6 the generation of electric energy on a contin-
- 7 uous basis for an extended period of time per
- 8 day over a period of not less than 10 days;
- 9 (B) operational characteristics that enable
- 10 the generation of electric energy during emer-
- 11 gency and severe weather conditions; and
- 12 (C) essential reliability services, including
- 13 frequency support and voltage support, to main-
- 14 tain reliability of the bulk-power system;
- 15 (3) facilitate fuel diversity, resource adequacy,
- 16 and reliability, including the cost-effective retention
- 17 and development of needed generation;
- 18 (4) promote the equitable integration and treat-
- 19 ment of generation resources, business models, and
- 20 advanced grid technologies;
- 21 (5) identify and address regulatory barriers to
- 22 entry, market-distorting incentives, and artificial
- 23 constraints on competition;
- 24 (6) provide accurate price formation in energy
- 25 markets, including by—

1 (A) reflecting the real value and marginal
2 cost of providing electric energy;

3 (B) observing the principles of dispatch-
4 based pricing;

5 (C) minimizing out-of-market actions and
6 payments;

7 (D) improving transparency regarding dis-
8 patch decisions, including the need for out-of-
9 market actions and payments; and

10 (E) ensuring accurate day-ahead unit com-
11 mitments;

12 (7) ensure fairness and improved transparency
13 in governance structures and stakeholder processes,
14 including meaningful participation by both voting
15 and non-voting stakeholder representatives;

16 (8) facilitate the development of necessary nat-
17 ural gas and electric transmission infrastructure;

18 (9) consider, as appropriate, State and local re-
19 source planning; and

20 (10) mitigate, to the extent practicable, any dis-
21 ruptive effects of tariff revisions on the economic de-
22 cision-making of market participants.

23 (c) PLAN SUBMISSION DATES.—The Commission
24 shall direct each regional transmission entity to submit a
25 plan described in subsection (a) by not later than 180 days

1 after being directed to develop such a plan by the Commis-
2 sion.

3 (d) PERIODIC REPORTING.—The Commission shall
4 require quarterly reporting from each regional trans-
5 mission entity to allow the Commission to monitor timely
6 implementation of the plan submitted by the regional
7 transmission entity under subsection (a).

8 (e) DEFINITION.—For purposes of this section:

9 (1) BULK-POWER SYSTEM.—The term “bulk-
10 power system” has the meaning given that term in
11 section 215(a) of the Federal Power Act (16 U.S.C.
12 824o(a)).

13 (2) REGIONAL TRANSMISSION ENTITY.—The
14 term “regional transmission entity” means a Re-
15 gional Transmission Organization or an Independent
16 System Operator, as such terms are defined in sec-
17 tion 3 of the Federal Power Act (16 U.S.C. 796).

18 **CHAPTER 3—PURPA MODERNIZATION**

19 **SEC. 4231. PURPA MODERNIZATION.**

20 (a) NONDISCRIMINATORY ACCESS.—Section 210(m)
21 of the Public Utility Regulatory Policies Act of 1978 (16
22 U.S.C. 824a-3(m)) is amended by adding at the end the
23 following new paragraph:

24 “(8) PRESUMPTION OF NONDISCRIMINATORY
25 ACCESS TO WHOLESALE MARKETS.—For purposes of

1 paragraph (1), a qualifying cogeneration facility of
 2 any size or a qualifying small power production facil-
 3 ity of any size is presumed to have nondiscrim-
 4 inatory access to wholesale markets described in sub-
 5 paragraph (A), (B), or (C) of such paragraph if the
 6 facility, in the relevant market—

7 “(A) is eligible for service under—

8 “(i) a Commission-approved open ac-
 9 cess transmission tariff or a Commission-
 10 filed reciprocity tariff; and

11 “(ii) Commission-approved inter-
 12 connection rules; and

13 “(B) is eligible to participate in competi-
 14 tive solicitations overseen by a State regulatory
 15 authority.”.

16 (b) REGULATIONS.—Not later than 120 days after
 17 the date of enactment of this section, the Federal Energy
 18 Regulatory Commission shall revise its regulations to
 19 carry out the amendment made by subsection (a).

**DISCUSSION DRAFT ON ACCOUNTABILITY
AND DEPARTMENT OF ENERGY PERSPEC-
TIVES ON TITLE IV: ENERGY EFFICIENCY—
DAY 2**

THURSDAY, JUNE 4, 2015

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

The subcommittee met, pursuant to call, at 10:17 a.m., in room 2322 of the Rayburn House Office Building, Hon. Ed Whitfield (chairman of the subcommittee) presiding.

Members present: Representatives Whitfield, Shimkus, Latta, Griffith, Johnson, Long, Rush, McNerney, Tonko, Castor, Sarbanes, Welch, and Pallone (ex officio).

Staff present: Nick Abraham, Legislative Associate, Energy and Power; Will Batson, Legislative Clerk; Leighton Brown, Press Assistant; Allison Busbee, Policy Coordinator, Energy and Power; Patrick Currier, Counsel, Energy and Power; Tom Hassenboehler, Chief Counsel, Energy and Power; A.T. Johnston, Senior Policy Advisor; Brandon Mooney, Professional Staff Member, Energy and Power; Dan Schneider, Press Secretary; Caitlin Haberman, Democratic Professional Staff Member; Rick Kessler, Democratic Senior Advisor and Staff Director, Energy and Environment; and John Marshall, Democratic Policy Coordinator.

Mr. WHITFIELD. I would like to call to order our recessed hearing from yesterday and continue with our panel of witnesses. And we appreciate very much this second panel joining us as we continue our discussion on our discussion draft relating to energy. And we have a great panel of witnesses today. I am going to call on each one of you for 5 minutes to discuss the draft and your perceptions and thoughts about it, and then we will open it up for questions.

And I am just going to introduce you as I recognize you for the 5-minute opening statement. So our first witness is Ms. Sue Kelly, who is the President and CEO of American Public Power Association. Ms. Kelly, thanks for being with us, and you are recognized for 5 minutes. And I would just ask all of you just make sure the microphone is turned on. And, of course, when the red light goes on, that means your time is up. So, Ms. Kelly, you are recognized for 5 minutes.

STATEMENTS OF SUSAN N. KELLY, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN PUBLIC POWER ASSOCIATION; JOHN E. SHELK, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ELECTRIC POWER SUPPLY ASSOCIATION; PETER GALBRAITH KELLY, JR., SENIOR VICE PRESIDENT, EXTERNAL AFFAIRS, COMPETITIVE POWER VENTURES; CHRISTOPHER COOK, PRESIDENT AND GENERAL COUNSEL, SOLAR GRID STORAGE LLC; JONATHAN M. WEISGALL, VICE PRESIDENT, LEGISLATIVE AND REGULATORY AFFAIRS, BERKSHIRE HATHAWAY ENERGY; AND WILLIAM S. SCHERMAN, PARTNER, GIBSON, DUNN & CRUTCHER LLP

STATEMENT OF SUSAN N. KELLY

Ms. KELLY. Good morning, Chairman Whitfield, Ranking Member Rush, although you are not here yet, and other members of the subcommittee. Thank you for inviting me to testify. APPA commends your hard work putting together the first comprehensive energy package since 2005. We stand ready to work with you to improve America's access to affordable, reliable, and environmentally responsible electric power.

Today, I am going to discuss APPA's views on Title IV, Subtitle B, of your discussion draft. I will address the subtitle sections in the order they appear.

APPA certainly supports increased compliance by regulated energy subject to FERC's regulations, but APPA is not convinced that proposed Section 4211 is the best way to do this. It might make more sense for FERC to review its current procedures and policies, and revamp them as needed to make sure that regulated entities get meaningful and timely guidance. I do note that it would be easier for market participants to comply with FERC-approved tariffs if the applicable market rules were simpler and clearer, and I will speak to that issue later.

Moving to Section 4212, APPA believes that unless there are compelling reasons for Congress to step in, FERC should set the procedures for its own investigations. The public has to rely on the Commission's enforcement staff to protect its interests as electric consumers in these investigations. This is because third parties have no right to participate in these cases at all. If Congress, does subject—or give the subjects of FERC investigations additional protections, Congress must make sure that these new protections do not adversely impact enforcement staffs' ability to protect the public from market manipulation.

Turning to proposed Section 4221, APPA very much appreciates the interest the subcommittee has shown in the problems with wholesale electricity markets. In my written testimony, I provide detailed comments on the provisions of that section. Some of them would be helpful, in our view, but others would not. APPA has been concerned over the past 10 years about the restructured wholesale electric markets that regional transmission organizations and independent system operators, which we call RTOs, operate. Public power utilities must deal with RTOs and their markets because they are located inside the boundaries of their RTO's footprints. They are often geographically and electrically embedded in the transmission systems of larger investor-owned utilities that de-

cided to participate in that RTO. So while our participation in these RTOs and their markets may, in theory, be voluntary, in fact, they are not because of the interconnected nature of the grid.

These APPA members deal with the day-to-day complexity and costs of operating in these markets. They must participate as best they can in time-consuming and resource-intensive RTO stakeholder processes. These processes in most regions are heavily skewed towards the interest of large transmission and generator asset owners, and the governance processes of some of the RTOs is less than transparent. So many public power utilities' only choice is to work with Congress and with FERC to seek needed reforms.

Many of the wholesale electric markets that FERC has authorized are not, in fact, markets as you or I would normally think of that term. They are highly complex administrative constructs with a maze of complicated rules. APPA's concerns about RTO-operated markets include extensive and frequent rule changes, volatile pricing, which can sometimes rise to very high levels with very little warning, and limited data transparency. The most troublesome RTO markets are the mandatory capacity markets that three eastern RTOs, ISO New England, PJM, and the New York ISO, operate. These administrative constructs account for a substantial share of total electric bills that consumers and businesses in those regions have to pay, but they haven't shown that they can support a reliable and diverse supply of power, or incent the building of new generation resources where they are most needed. Consumers have paid billions of dollars in charges for these markets, but don't see corresponding benefits.

APPA has recommended that FERC phase-out these eastern capacity markets over time. They should be replaced with voluntary residual capacity markets that better support State and local resource decisions and policies. But short of that, APPA proposes the following steps. First, RTOs that have not yet implemented a mandatory capacity market should not do so without the unanimous support of all the States in that region. And second, RTOs that already have a mandatory capacity market should not keep utilities and States from meeting their own capacity obligations through resources that they build, owned, control, or contractor for.

Finally, APPA supports the goals of Section 4231, dealing with purpose mandatory purchase obligations, but we can't support that section in its current form. As drafted, the section would preclude public power utilities from getting any relief from their obligations to purchase power from QFs under the provision. This could leave them at a competitive disadvantage compared to neighboring utilities that do qualify for that relief.

So again, thank you for the opportunity to appear today, and I am happy to answer any questions. Thank you.¹

Mr. WHITFIELD. Thank you, Ms. Kelly.

And our next witness is John Shelk, who is the President and CEO of the Electric Power Supply Association. Mr. Shelk, thanks for being with us, and you are recognized for 5 minutes.

¹Ms. Kelly's prepared statement has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/HHRG-114-IF03-Wstate-KellyS-20150603.pdf>.

STATEMENT OF JOHN E. SHELK

Mr. SHELK. Well, thank you, Mr. Chairman, Ranking Member Rush, and the other members of the subcommittee. I appreciate the invitation to participate in the hearing today.

EPSA is the national trade association for leading competitive wholesale suppliers. EPSA members together have over 200,000 megawatts; fuel-diverse megawatts, essential to reliability. Over 95 percent of these assets are in the Independent System Operator and Regional Transmission Organization territories that are the subject of the discussion draft. Reliability in these and other markets requires generation from a network of power plants, operating simultaneously with base load, mid-merit and peaking capabilities, deploying a range of fuels and technologies, because electricity demand fluctuates during the day and seasonally.

As you all know, and as your hearings have demonstrated, the electric sector is in the early stages of what will likely be a multiyear, even multidecade, series of profound changes, fundamentally altering the way electricity is generated and consumed. Well designed and properly regulated competitive wholesale markets, in our views, remain the best model to manage these many changes because markets, properly regulated, are inherently more flexible, adaptable, and place more risks on investors than consumers.

EPSA appreciates the inclusion in the discussion draft of energy price formation principles in Section 4421 of the draft for required wholesale power market improvements. Importantly, it is important to point out that EPSA is joined in urging FERC to act on this issue by the Edison Electric Institute, the Nuclear Energy Institute, the Natural Gas Supply Association, and American's Natural Gas Alliance, in a joint letter to the Commission back on March the 9th of this year.

Energy price formation refers to how these ISOs and RTOs determine the granular locational marginal prices for electric energy sold in their markets. For most power plants, energy sales are the prime resource of revenue. As Sue indicated, LMPs, associated revenues, and other aspects of these markets are tightly bounded by FERC-approved market designs, tariff rules, and grid operator actions. Absent accurate prices in these markets, energy markets will send distorted information about when, where, and how to invest efficiently to meet future electricity infrastructure needs. There are unique characteristics of electricity that make it a challenge to arrive at prices truly reflective of total costs of providing reliable service, and we can discuss those later if you wish.

Importantly, through this issue, the grid operators, independent of generators, ultimately determine the dispatch of specific power plants in their regions. This generally works well to produce competitive pricing outcomes, as documented through regular quarterly and annual data-driven, state-of-the-market assessments from the independent market monitors in each of these regions. However, when the grid operator takes out-of-market actions, the effect is to call on plants out of merit order, and others have to stand by in reserve, or do not run at all, even if they would otherwise be operated on a purely least cost basis. These out-of-market plants, when they are called in that manner, are paid what is called uplift, not

the market price. Uplift, like an elevated body temperature, can be a sign of potentially unhealthy conditions, which is why the provisions of the discussion draft are so important.

To its credit, the Federal Energy Regulatory Commission has been working on these issues since 2013, including 3 daylong technical conferences, preceded by 4 detailed staff reports, from September through December of 2014. Earlier this year, FERC posed a series of thoughtful questions for public comment, on which numerous submissions from a variety of points of view have been received, and we think that docket now stands as compelling evidence that action needs to occur.

While we assume that FERC is presently considering its options for next steps, we and the others in our group cannot overstate the importance of public FERC follow-up in the next several months. Decisions as to whether to retire, replace, or repower large amounts of existing megawatts throughout each of the RTOs will be made this year, impacting reliability for decades. Competitive suppliers have proven that they will respond with timely investments in these markets, without preferential stamping of the contracts, when accurate price signals show the need and the results from recent capacity auctions demonstrate that that is the case.

So we commend you for including this provision in the draft. We think it is important to draw attention to the issue. And we think, frankly, FERC hopefully will act prior to the enactment of legislation because, again, decisions are being made now, and investment signals are distorted, and the ISO RTO Council, which is the group of all of them, just last week put out a report based on a third-party assessment of investor sentiment, and this issue of out-of-market actions that the subcommittee draft would address is one of the impediments to investment noted in that report. So we appreciate the inclusion of the language that you have put in the draft.

Thank you.

[The prepared statement of Mr. Shelk follows:]

SUMMARY STATEMENT OF THE ELECTRIC POWER SUPPLY ASSOCIATION
Subcommittee on Energy and Power – Discussion Draft of Title IV
June 4, 2015

EPSA is the national trade association for leading competitive wholesale power suppliers. Members are independent power producers and competitive generation affiliates of holding companies that represent over 200,000 fuel diverse megawatts, over 95 percent in the “organized markets” that are the subject of the discussion draft.

The power sector is in the early stages of what will likely be a multi-year, even multi-decade, series of profound changes in how electricity is generated and consumed. Well-designed and properly regulated competitive wholesale markets remain the best model to capture these benefits while managing challenges because markets are inherently more flexible, adaptable and place more risks on investors than consumers.

EPSA appreciates the inclusion of fundamental energy price formation principles in the criteria in section 4421(b)(6) of the discussion draft for required wholesale power market improvements. EPSA is joined by Edison Electric Institute, Nuclear Energy Institute, Natural Gas Supply Association and America’s Natural Gas Alliance in stressing the importance of further FERC action this year on energy price formation reforms.

“Energy price formation” refers to a basket of issues around how ISOs/RTOs determine the granular Locational Marginal Prices (“LMPs”) for sales of electric energy. For most plants (all but peaking units) energy sales are the primary source of revenues. LMPs and associated revenues are tightly bounded by FERC-approved market designs and tariff rules along with ISO/RTO grid operator actions. Electricity has unique characteristics that can make it a challenge to consistently arrive at prices truly reflective of total costs to provide reliable service.

ISOs/RTOs generally work well and provide meaningful benefits to consumers, the economy and the environment, which is why their geographic scope has expanded. Including energy price formation in the discussion draft raises timely awareness of how FERC should continue to work with ISOs/RTOs to adapt to changing dynamics that impact investment decisions. Accelerating reforms this year will help address concerns about base load generation, renewables, flexible resources, and capacity markets.

FERC has accomplished a great deal since 2013 looking into these issues. There is now a compelling record before the Commission demonstrating that follow up actions to improve how ISO/RTO energy prices are determined are urgently required this year to avoid adverse consequences for investment in electricity supply infrastructure.

The discussion draft correctly includes operational needs during emergency and severe weather conditions and essential reliability services in the criteria in section 4221. EPSA also urges consideration by EPA and FERC of how the Clean Power Plan should be modified to address concerns about its potential impacts on wholesale power markets as outlined in a report EPSA released last week.

STATEMENT OF THE ELECTRIC POWER SUPPLY ASSOCIATION

**John E. Shelk
President and CEO**

**U.S. House of Representatives
Committee on Energy and Commerce
Subcommittee on Energy and Power**

June 4, 2015

Thank you for inviting the Electric Power Supply Association ("EPSA") to today's hearing on the discussion draft of Title IV – Energy Efficiency and Accountability. EPSA commends the Committee for considering important electricity policy issues. Doing so allows all of you as policymakers and each of us as market participants who deliver reliable power supplies to step back from day-to-day matters to look at the bigger picture. That has never been more important than today given all the opportunities and challenges facing the energy sector, including electricity.

EPSA is the national trade association for leading competitive wholesale power suppliers. EPSA members are independent power producers and competitive generation affiliates of utility holding companies that represent over 200,000 megawatts essential to resource adequacy and reliability. EPSA members are fuel diverse and among the largest operators of each fuel type: over half of member assets is natural gas; one-fifth is nuclear; over one-sixth is coal; and the balance is renewable (wind, solar, geothermal and hydro). Over 95 percent of EPSA assets are in "organized markets" administered by the Independent System Operators ("ISOs") and Regional Transmission Organizations ("RTOs") that are the subject of the discussion draft. Competitive electricity represents nearly all of the supply in many states and regions.

ISO/RTO Market Reforms In Context: Rapid Change Is The New Constant

Wholesale competitive power markets have been decades in the making and continue to evolve while providing a range of benefits to consumers, the environment and the economy. (See Attachment A for a brief history of electricity business models.) All business models and their regulatory paradigms – whether cost-of-service regulation of vertically-integrated utilities or market design, tariffs and operator practices in ISO/RTO markets – must rapidly improve to keep pace with the changes occurring due to technological, economic and policy developments. Chapter 2 of the discussion draft is important because proposed section 4421(b)(6) would require the Federal Energy Regulatory Commission (“FERC”) and ISOs/RTOs to better align market design, tariff rules and grid operator actions to produce more efficient and transparent results to guide needed investments.

EPSA has always stressed that from both resource adequacy and operational perspectives, reliability requires ample supplies of affordable and environmentally responsible electricity. This requires generation from a network of power plants operating simultaneously with base load, mid-merit and peaking capabilities deploying a range of fuels and technologies because electricity demand fluctuates hourly and seasonally. EPSA's preferred policy approach is to refine market-based mechanisms that to the maximum extent possible are fuel neutral. This means estimating quantities and defining attributes the grid needs for reliability and letting those who can provide them compete in the wholesale markets. That is easier said than done given numerous federal and state policy debates, the outcome of which could undermine the ability of wholesale power markets to perform reliably and efficiently as intended.

The power sector is in the early stages of what will likely be a multi-year, even multi-decade, series of profound changes in how electricity is generated and consumed. For starters, the correlation between economic growth and demand for electricity has weakened so volumetric-based revenues weaken as well. While evolutionary in apparent pace at the moment, the end result could be revolutionary compared to the system today. The one-directional power flows exclusively from central station power plants to consumers are shifting to greater multi-directional power flows with enhanced consumer tools to manage consumption. As intermittent resources such as wind and solar increase, other power plants are required to operate differently than designed, with greater wear and tear on those plants. Resources that can ramp up and down rapidly become central to reliability when electricity from intermittent resources declines.

As the cost of renewables continues to reach those of conventional resources, as supplies of relatively low-cost natural gas are plentiful for decades, as new technologies such as distributed generation and battery storage emerge, and as the relative economics of conventional fuels changes, traditional centralized "integrated resource planning" falls victim to the conceit of perfect knowledge that is elusive when change is accelerating rapidly for the power sector and could in fact quicken.

As a result, well-designed and properly regulated competitive wholesale markets remain the best model to manage these challenges and risks because markets are inherently more flexible, adaptable and place more risks on investors than consumers. Any market depends on ample opportunities – not guarantees – for suppliers to earn market revenues sufficient to recover costs and earn a fair risk-adjusted return of and on invested capital to meet consumer demand.

The Critical Importance of Making Energy Price Formation Improvements Soon

EPSA appreciates the inclusion of fundamental energy price formation principles in the criteria in section 4421(b)(6) of the discussion draft for required wholesale power market improvements. EPSA is pleased to be joined by Edison Electric Institute, Nuclear Energy Institute, Natural Gas Supply Association and America's Natural Gas Alliance in stressing the importance of energy price formation reforms.¹

From the outset, it is important to differentiate three types of markets that ISOs/RTOs administer: (1) sales of electric energy when power plants are dispatched, (2) sales of ancillary services (such as voltage support and frequency response), and (3) capacity markets where they exist (in many but not all ISOs/RTOs) to help recover fixed power plant costs. "Energy price formation" refers to a basket of issues that go to how ISOs/RTOs determine the granular Locational Marginal Prices ("LMPs") at thousands of nodes in the Day Ahead and Real Time markets for sales of electric energy. For most plants (all but peaking units) energy sales are the primary source of revenues. LMPs and associated revenues are tightly bounded by FERC-approved market designs and tariff rules along with ISO/RTO actions as explained below.

Everyone – consumer and supplier alike – should want energy price formation improvements this year. Markets require prices that accurately reflect supply, demand and system conditions. This is true regardless of whether generation is base load, peaking, or in between; whether the fuel is coal, natural gas, nuclear or renewables; and whether from central station plants or distributed resources. Absent accurate prices,

¹ *Price Formation in Energy and Ancillary Services Markets Operated by [RTOs] and [ISOs]*, Docket No. AD14-14-000, Letter on Joint Price Formation Principles from EPSA, EEI, NEI, NGSA and ANGA, (submitted March 9, 2015), <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13797119>.

ISO/RTO energy markets will send distorted information about when, where and how to invest efficiently to meet future needs. While always important, this is critical today given long-lead times and multi-decade projects at a time of considerable change in the electric sector's needs and resource mix.

There are unique characteristics of electricity that make it a challenge to arrive at prices truly reflective of the total costs of providing reliable service. The physics of electricity are such that generation from dozens to hundreds of power plants is needed simultaneously to meet demand in any instant. Electricity production from multiple plants is essentially co-mingled to supply consumers, not delivered in physically separate packages. Electricity supply is required to be in surplus through necessary mandatory reserve margins, not in the equilibrium of economics text books. Electricity supply and demand are thus more interconnected physically and financially than is the case for other goods and services in the economy.

In ISO/RTO markets, grid operators independent of generators ultimately determine the dispatch of specific power plants. This is done under detailed FERC-approved tariff rules including limits on what costs can be included in supplier bids, which units can set the single market-clearing price paid to all resources, and an outdated artificial cap on supply offers even when supplier costs exceed the cap, as happened during the 2014 Polar Vortex. Thus, power producers do not unilaterally determine the prices they to bid into RTO/ISO markets, much less set the prices they receive. This generally works well to produce competitive pricing outcomes as documented through periodic data-driven analytical reports and state of the market assessments from ISO/RTO external and internal market monitors.

Various power plants have widely differing operating characteristics including as to how long it takes for the unit to come online, how long it needs to stay online, and at what minimum and maximum output. Grid operators dispatch plants not only on the basis of pure economics, but constantly take different plant operating characteristics and their expectations of changes to near term demand levels into account. In short, largely for good reason, grid operators make dispatch decisions "conservatively" so as not to run even the slightest risk of coming up short of power.

When the grid operator takes out of market actions the effect is to call on certain plants to be dispatched out of merit order and others to stand by in reserve or not run at all even if otherwise they would run on a purely least cost basis. Generally, units called out of merit order are not allowed to set the market price for the remaining units even though the effect of calling on them is to reduce prices and volumes that determine compensation for the rest. Instead, the out of merit units are paid separately through "uplift" to cover their costs. The "uplift" is ultimately allocated to consumers. "Uplift" is not hedgeable, meaning it is a risk for consumers that cannot be protected against in advance through financial arrangements as can be done to manage energy price risk. "Uplift" reached very high record levels in the winter of early 2014 and while 2015 winter levels were lower than 2014 they were still high by historical measures. Such levels of "uplift" – like elevated body temperature – are a sign of potentially unhealthy conditions. While "uplift" will never be eliminated nor should it be, most wholesale power market experts agree it should be kept to a minimum.

While operator actions and "uplift" have existed for a long time, it was not material to energy price formation until the advent of plentiful relatively low-cost natural

gas and weaker power demand artificially put structurally downward pressure on wholesale prices, which as shown in multi-year ISO/RTO data have been much lower in recent years than earlier ones, sometimes as much as half historic peaks.

Understandably, one might conclude this is a boon for consumers, but on further inspection it is at best temporary if the present situation is not sustainable for certain power plants and the long-term overall health of wholesale markets. The reason is that no business asset can survive for long if it cannot recover its costs plus an adequate risk-adjusted return of and on invested capital.

In any market, over time some assets will retire and new assets will enter. When that happens on the basis of true economic merit, it is markets at work. Here, however, the substantial risk is that consumer costs will actually increase over time if more power plants continue to retire prematurely and other power plants with operational attributes the changing resource mix requires (e.g., natural gas plants that can ramp up and down quickly to adjust to rising and falling intermittent resource) are not properly compensated. The replacement cost of new plants could be substantially higher than what some existing resources facing closure would have needed to stay in operation.

ISOs and RTOs generally work well and provide meaningful benefits to consumers, the economy and the environment, which is why their geographic scope has expanded. However, any market, particularly relatively new ISO/RTO markets, can and should be improved as lessons are learned. Including energy price formation in the discussion draft raises timely awareness of how RTOs and ISOs need to adapt quickly to changing dynamics that impact investment decisions as to the viability of existing and new supply resources.

Importantly, these regulatory reforms will help address the concerns raised by Subcommittee Members across the aisle in recent hearings on matters as varied as base load generation, renewable resources, and capacity markets.

FERC has spent a great deal of time on important issues around capacity markets as they were introduced in certain ISOs/RTOs, with several pending dockets on which decisions are imminent. Until recently, FERC spent far less time on the larger energy markets. To their credit, FERC and its staff have accomplished a great deal since 2013 looking into how prices are formed in these markets. FERC held three day-long technical conferences preceded by issuance of detailed staff reports from September through December 2014. Earlier this year, FERC posed a series of thoughtful questions for public comment on which numerous submissions from various points of view were made. FERC's docket now forms a compelling record that improvements to how energy prices are determined are urgently required.

EPSA's recommended reform priorities focus on improved market pricing through steps to price dispatch decisions made by grid operators in the name of reliability more frequently in the market prices for all to see and less so through opaque out-of-market "uplift" payments; greater transparency around grid operator actions; lifting or changes to energy offer caps; sub-hourly pricing to better compensate plants capable of ramping quickly; and intra-day offer flexibility so that supplier bids to ISOs/RTOs better reflect market conditions such as fuel costs.² The much less desirable alternative, which is likely in the absence of action in the next few months, is Balkanization of the power

² *Price Formation in Energy and Ancillary Services Markets Operated by [RTOs] and [ISOs]*, Docket No. AD14-14-000, Comments of the Electric Power Supply Association (filed March 6, 2015), <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13795045>.

sector by fuel type and plant location. This would be accompanied by more requests for out-of-market payment mechanisms, eroding rather than reinforcing the competitive markets that Congress and FERC spent decades developing on a bipartisan basis.

While FERC is presumably considering options for next steps, EPSA cannot overstate the importance of public FERC follow up in the next several months putting the ISOs and RTOs on a clear path toward energy market pricing reforms. This is critical because the surplus supply that generally existed when wholesale competition and restructuring began in the 1990s has been reduced as plants retired for a variety of reasons. Decisions as to whether to retire, repower, or replace large amounts of existing megawatts will continue to be made this year impacting reliability for decades. Competitive suppliers in ISO/RTO markets have proven they will respond with timely investments when accurate price signals show the need, as the results from recent capacity market auctions amply demonstrate.

In sum, reliability in ISOs/RTOs turns on investment decisions made independently by a multitude of market participants, including developers, owners and operators of power plants as well as lenders and investors. Market participants make economically efficient decisions as to existing and new plants when price signals are accurate and resulting revenues justify investments. These decisions are now influenced by expectations of whether identified deficiencies in energy price formation will be addressed soon so future revenues are in better focus. ISOs/RTOs follow priorities set by FERC, which in turn implements the Federal Power Act as enacted by Congress. Continued Commission leadership is key to timely implementation of reforms that parallel those in the discussion draft to avoid adverse consequences.

**The Discussion Draft Also Draws Attention to Other Significant Issues:
Electric/Gas Coordination and Essential Reliability Services**

The discussion draft also includes operational characteristics during emergency and severe weather conditions among the criteria for the reform plans required by section 4221. FERC is to be commended for its multi-year work on coordination between the natural gas and electricity sectors. Much progress has been made and more is at hand. As ISOs/RTOs respond by July 23, 2015, to FERC Order No. 809 on adjustments to electric day timing and operations in light of recently approved changes on the natural gas side, EPSA urges ISOs/RTOs to reduce processing times in determining Day Ahead commitments so that power plants have more opportunities to procure natural gas while those markets are liquid each day. ISOs/RTOs should also provide greater intraday offer flexibility so that bids reflect accurate fuel costs.

Another criteria in the discussion draft relates to "essential reliability services." The North American Electric Reliability Corporation ("NERC") has recognized the importance of this subject through its Essential Reliability Services Task Force, of which EPSA and its members are active participants. NERC has made progress in educating policymakers and the public about the critical importance of voltage support, ramping capability and frequency response. These system needs were once taken for granted as a byproduct of the "rotating mass machines" that largely made up the power fleet. The need for these services to maintain reliability shows that not every megawatt of supply or demand resources is equal. If less of these services will be available as traditional sources of generation that provided them as a matter of course decline, then they must be procured and compensated separately through market-based products.

The Interaction of EPA's Clean Power Plan and ISO/RTO Wholesale Markets

While the Clean Power Plan ("CPP") is not the subject of this hearing, it is impossible to consider how power markets will function in future years without taking it into account. EPSA spoke at the FERC national conference on the CPP on February 19, 2015, stressing that FERC is uniquely qualified and responsible for addressing aspects of the CPP that might undermine competitive markets. EPSA focused on making sure the CPP is developed and implemented consistent with the bid-based, security-constrained economic dispatch used to procure the least cost mix of resources.

FERC's expertise in assessing the power market impacts of EPA regulations was recently confirmed by the U.S. Court of Appeals for the District of Columbia Circuit in *Delaware Department of Natural Resources and Environmental Control v. Environmental Protection Agency*, Nos. 13-1093, *et al.*, 2015 WL 194736 (D.C. Cir. May 1, 2015). EPSA was an intervenor and was pleased a unanimous three-judge panel overturned an EPA rule exempting behind-the-meter generators used in demand response from hazardous air pollution requirements. The court recognized the adverse effects of such a discriminatory exemption on power markets, including on cleaner sources of electricity and the prices received by all types of plants dependent on market revenues. The court directed EPA to work with FERC on remand.

Last week, EPSA released a report by The Analysis Group entitled "Carbon Control and Competitive Wholesale Electricity Markets: Compliance Paths for Efficient Market Outcomes."³ The report goes into detail on how aspects of the CPP could

³ See, "Carbon Control and Competitive Wholesale Electricity Markets: Compliance Paths for Efficient Market Outcomes," prepared as an independent report by Susan F. Tierney and Paul J. Hibbard of the Analysis Group and funded by Electric Power Supply Association, May 2015, available at www.epsa.org.

interfere with or undermine competitive market outcomes in ISOs/RTOs unless these concerns are addressed by EPA, FERC and the States. This largely stems from the proposed state-by-state emissions rate-based approach in the CPP that could produce market-distorting results given widely varying numerical targets among states within the same multi-state ISO/RTO. Thus, similarly situated power plants will receive potentially widely varying revenue streams merely as a function of which state they are located in, even though power flows do not follow state boundaries.

Similarly, the CPP covers “existing” power plants while “new” power plants (defined as those with a commercial operation date after January 1, 2014) are not automatically covered. Thus, “new” plants operating outside of the CPP under the separately proposed New Source Performance Standards (“NSPS”) would be artificially advantaged to the detriment of accurate energy market price signals and revenues for existing power plants. Under the proposed allowable emissions levels under the NSPS rules, newly constructed natural gas combined-cycle plants (“CCGT”) would not incur compliance costs while similarly situated existing CCGT plants could be required to do so depending on state emissions rate targets in the CPP and a state’s implementation plan. Last week’s report outlines options for states to implement the CPP more consistently within regional markets by coordinating with each other, and for EPA, with FERC’s help, to encourage them to place “new” power plants within the CPP so all plants competing with each other are on a level playing field. It took Congress years to correct the costly distortions caused by artificial vintage pricing of “old” and “new” natural gas production based on arbitrary in-service dates under price controls enacted in 1978; FERC should work with EPA to avoid repeating that mistake with the CPP.

Conclusion

EPSA greatly appreciates Congressional direction and FERC leadership on electricity issues, including the ISO/RTO market improvements outlined in the discussion draft of Title IV. Many say, correctly, that reliability is job one. EPSA agrees given the important contributions its members make to reliability, particularly in the ISOs/RTOs that are the focus of the discussion draft. Follow through this year on energy price formation reforms, compensation for essential reliability services, natural gas/electric coordination, and the market impacts of the Clean Power Plan is critical to maintaining reliability while pursuing important public policy goals related to the economy and the environment.

Attachment A to EPSA Testimony***Brief History of Competitive Wholesale RTO/ISO Power Markets***

Prior to wholesale and retail competition in the 1990's, the nation was dependent on vertically-integrated utilities with defined exclusive service territories. These utilities generate electricity at power plants they own, move the power over their high-voltage transmission lines to load within their service territories, and operate the local distribution wires over which that electricity reaches consumers. As franchised monopolies, these utilities are subject to cost-of-service regulation. Regulators set rates such that these utilities are allowed to recover prudently incurred costs and a rate of return based on their capital structure. As outlined below, while several regions remain dependent on such utilities, that is no longer the case in most of the country.

Serious concerns about how vertically-integrated utilities operated began to emerge in the 1970's and 1980's with vigorous debates in this Committee, elsewhere in Congress, and at the state level. Lack of competition and the cost-based nature of traditional utility regulation meant that utilities were rewarded for higher costs, not lower ones. Multi-billion dollar cost overruns and construction delays were increasingly common with attendant costs passed on to captive ratepayers. Vertically-integrated utilities operating over relatively small geographic footprints meant that each utility built more and more power plants to service its exclusive territories. This was rightfully seen as highly inefficient and ultimately costly for consumers. These utilities controlled transmission lines which allowed them to block access to or through their systems by competitors with less expensive power. At the same time, greater reliance on market forces was largely working in various transportation and telecommunications sectors.

Congress took the first steps toward wholesale electricity competition through the Public Utility Regulatory Policies Act of 1978 ("PURPA") that required utilities to purchase power from certain renewable and small power plants known as "qualifying facilities." While the implementation of PURPA had its imperfections, the law proved that power generation is not a natural monopoly that justifies only allowing the same entity to control generation, transmission and distribution and giving them the exclusive right to provide power supplies to customers in a defined service territory.

Congress under the bipartisan leadership of the Energy and Commerce Committee added provisions to the Energy Policy Act of 1992 ("EPACT92") that jump-started wholesale power competition in a major way. In EPACT92, Congress directed the Federal Energy Regulatory Commission ("FERC") to allow greater non-discriminatory access to the transmission system to facilitate the movement of power across multiple transmission systems. The new law also created "exempt wholesale generators" to allow independent power producers to pursue larger scale projects than those allowed under PURPA.

FERC implemented EPACT92 through a series of landmark orders adopted on a bipartisan basis in the 1990's. These orders imposed open access tariff requirements on transmission owners so that new entrants independent of the vertically-integrated utility could get their power to customers choosing to purchase it. FERC also encouraged the voluntary formation of Regional Transmission Organizations ("RTOs") to operate the grid independently of the owners of the transmission lines. RTOs also began to run wholesale markets through which power plants are dispatched on a least cost basis using bid-based security-constrained economic dispatch (SCED).

In RTO markets, power plants in a given state, in the case of a single state independent system operator (California, New York and Texas), or across states in a multi-state region (ISO-New England, PJM Interconnection, Midcontinent ISO, and Southwest Power Pool) dispatch power plants regardless of who owns them so that consumers receive the benefit of the least cost supply resources to meet demand at any given time. In addition, some states restructured their retail systems, including by unbundling generation from traditional cost-of-service rate-regulation and allowing entities other than the vertically-integrated utilities to sell power at retail to customers.

The combination of greater wholesale and retail competition fundamentally altered the economics in a way better suited to delivering consumer benefits. Instead of cost-plus rates paid by captive customers, power producers within these new "organized markets" had to earn revenues through power sales in competition with others. No longer would simply spending more ratepayer money mean making more in profits. Predictably, with the economic incentives better aligned, competitive power producers took over the operation of then-existing power plants, getting more out of them: capacity factors increased considerably, refueling times at nuclear plants shortened dramatically, and the fuel efficiency of coal plants increased substantially.

At the same time, new entrants came into the business with new technologies and resource types such as wind, solar and combined-cycle natural gas plants. Investments in existing and new plants started to be made as they are generally in a market economy with much greater risks on developers, owners, operators, and investors better able to manage those risks, not on captive customers with no choice but to pay up for mistakes and miscalculations made by others in their name.

Mr. WHITFIELD. Thank you, Mr. Shelk.

Our next witness is Mr. Peter Kelly, who is Senior Vice President, External Affairs, for the Competitive Power Ventures, Inc. Thanks for joining us, and you are recognized for 5 minutes.

STATEMENT OF PETER GALBRAITH KELLY, JR.

Mr. KELLY. Mr. Chairman, members of the committee, thank you for the time and the opportunity to address these what are very critical issues to us and to ratepayers.

We are developers of power plants. We develop natural gas-fired and wind generation all across North America. We, in that process of development, identify a need, expend tens of millions of dollars in development, and then seek to commercialize those projects. This is over the course of 2 to 3 years. In some cases, projects have taken as long as 11 years to fully permit and go to commercialization.

When we get to the point of commercialization, there are two paths; either merchant in the market where, depending on the market you are working in, you have either a 1-month to 6-month, or a 3-year price commitment, 1-year guarantee—that you know your price for 1 year. Makes it, at times, extraordinarily difficult to finance a project efficiently.

Under a contracting model, you have a commitment of 10, 15, or as many as 20 years. That commitment allows you to finance a project at anywhere from 22 to 30 percent lower cost of capital; all inuring to the benefit ultimately of ratepayers.

There have been recent challenges to State contracting, and—on a—three plants in the mid-Atlantic. We expect continued activity in this litigation throughout New England, as New England moves on in complying with the Clean Power Plan. There has been raised concern that these projects that are under contract cause—you know, could be referred to as market manipulation, impacting the market rates for all of the other generators. There are protections in place that are crystal clear in all of these eastern markets. There is mitigation or a minimum offer price rule where, if the project is determined to be economic or not economic. If it is not economic, do you not pass the mitigation, you cannot enter the market. If you do, clear mitigation. You are economic, you are determined to be needed by the market, and your contract at that point is valid. And that was the theory we were operating under.

As we move on with development across North America, there is an enormous need for new infrastructure. We have an aging fleet of generation, we have a Clean Power Plan that is going to make significant changes, and we have an abundant supply of natural gas that has had a fundamental change in the energy markets. And we are looking at States such as Ohio and Illinois and Connecticut and New York that are all seeking to retain generation, such as nuclear power in one instance, some coal, and natural gas and renewables. Whether they have the ability to do that or not will be predicated—dictated by the authority in the—what we see as a change in the authority, moving States' current authority to FERC and to the RTOs, to take on and undertake what is ultimately historical province of the States. The criteria in some cases as they are listed under 4221(b), many of those are within the

province of what the States have traditionally done, and I am not convinced that the transfer of that authority will serve, ultimately, the goals.

[The prepared statement of Mr. Kelly follows:]

Summary of Testimony of Braith Kelly, Senior Vice President, External Affairs

Competitive Power Ventures, Inc.

**Hearing Before the House Subcommittee on Energy & Power on Draft Electricity
Legislation**

Title IV – Energy Efficiency and Accountability; Subtitle B – Accountability

The competitive power sector will continue to play a substantial role in developing the new generation resources needed to replace aging infrastructure, and to meet the nation's emerging reliability and environmental objectives. Competitive power has relied for thirty years on long-term power contracts as an important tool in financing and constructing power plants. Most of the authority for authorizing and licensing new power plant construction resides at the State level, with FERC and the capacity markets providing an important additional means to secure shorter-term power needs. State competitive procurements will continue to be a valuable means to enable the States to meet their resource needs in the years ahead.

Testimony of Braith Kelly, Senior Vice President, External Affairs

Competitive Power Ventures, Inc.

**Hearing Before the House Subcommittee on Energy & Power on Draft Electricity
Legislation**

Title IV – Energy Efficiency and Accountability; Subtitle B – Accountability

June 4, 2015

Mr. Chairman, Subcommittee Members, thank you for the opportunity to comment on the Subcommittee's discussion draft legislation on energy efficiency and accountability. I represent Competitive Power Ventures, Inc. (CPV), a Maryland-based developer, owner and operator of non-utility power plants, including both natural gas-fired and wind-powered facilities. I will limit my comments to the discussion draft's proposals in connection with resource planning in the wholesale electricity markets.

Background on the Competitive Power Industry

The competitive power industry has been a vital component of the nation's electric power supply for over thirty years. Since the Public Utility Regulatory Policies Act of 1978 (PURPA), competitive power has proven to be a viable alternative to what had until then been the only regulatory model for developing power plants: construction, on a sole-sourced basis, by state-regulated monopoly utilities which had the exclusive right to develop these resources within defined service territories. Competitive power companies today own almost half the operating power plants in the United States.

The competitive power industry gave rise to a powerful tool that has been used by states since the 1980s to help develop needed resources: competitive procurements, where non-utility developers were given the opportunity to bid to provide resources. The electric power sector is the most capital-intensive industry in the world. In order to secure and finance these needed infrastructure investments, a stable revenue source was required and winning bidders were awarded long-term contracts (power purchase agreements) that enabled owners to access the capital markets to finance these massive investments at a reasonable cost of capital.

The Role of Regional Transmission Systems and Independent System Operators

Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) are private corporations that are governed by their stakeholders and regulated by FERC. RTOs and ISOs were formed in order to place the control of the transmission system in independent hands, to ensure both that needed transmission facilities were planned for, and that transmission would be made available on equal terms and conditions to all power generators.

Nearly fifteen years ago, some of the larger RTOs and ISOs began to develop capacity markets as a valuable adjunct to their core responsibilities in the transmission arena. These RTO/ISO capacity markets currently operate in twenty states: the New York ISO, PJM Interconnection (thirteen states plus the District of Columbia) and the New England ISO (six states). Since “reliability” requires both adequate transmission and adequate generation, the capacity markets serve the important function of providing a price signal for capacity needs over a short-term planning horizon (typically one month to three years) that helps identify what estimated demand is expected to be. The price signals developed through these capacity markets incentivize developers to construct needed resources; as the market clearing price rises to a level

that might support new generation, developers will be more inclined to invest the substantial capital needed to actually build these facilities. Price signals alone have not proved sufficient in all cases to cause the investment to be made; states have in many instances provided additional support to ensure the development of needed resources such as renewables or reliability-based projects.

The RTO/ISO wholesale capacity markets serve several important functions. They help to forecast short-term demand by providing a snapshot of the anticipated demand for electricity within a region, typically one month to three years in the future. They generate price signals that can incentivize project development. And they provide a regional pool of wholesale electricity where wholesale sellers and buyers can transact to meet short-term needs.

But these capacity markets, as FERC has repeatedly stated, are “a” market, not “the” exclusive market. They are, more specifically, a residual market that is intended to complement bilateral contracts and State resource planning. To begin with, the capacity markets provide an undifferentiated product, i.e. electrons only, without consideration of the types of factors typically considered by a State in meeting its needs, such as complying with state and federal environmental laws, meeting national air quality standards, plant location, land use planning, water and air quality impacts, other environmental objectives, age-of-plant, etc.

In addition, neither FERC nor the RTOs/ISOs have authority to cause a power plant to be built or retired. They have no siting authority, no licensing authority, no ability to order a developer like CPV or a local utility to construct needed resources. Indeed, RTOs and ISOs that identify particular reliability needs that are not being met in the region, for whatever reason,

typically alert the state regulatory commissions of the problem so that the State may exercise its authority – authority the RTOs/ISOs do not have – to ensure that the resources are developed.

That is no gap or accident. It has been a core precept of the Federal Power Act since 1935, when Congress, while giving FERC plenary authority over wholesale electric rates, specifically reserved to the States jurisdiction “over facilities used for the generation of electric energy.” That basic principle has been reaffirmed in almost every federal electricity law enacted by the Congress since 1935, including PURPA, the 1992 Energy Policy Act and the 2005 Energy Policy Act. As most recently stated in the 2005 Act, “[n]othing in this section shall be construed to preempt any authority of any State to take action to ensure the safety, adequacy, and reliability of electric service within that State.” It is the State – not FERC or the regional transmission organizations – that has had ultimate responsibility for over a century to ensure that retail customers enjoy safe, reliable electric service.

This division of labor has been fundamental to the nation’s energy policy since at least 1935. Energy policy is a shared responsibility between the federal and state governments. And while disputes have arisen over the years as to the precise dividing line between federal and state authority, most of those disputes have been resolved practically and amicably, with each entity bringing to the table an informed understanding of its role and the importance of the task to be addressed. For example, FERC has on several occasions addressed the need to harmonize its rules governing the capacity markets with the states’ need to support the development of facilities that also compete in the FERC-regulated markets, striking a balance to accommodate the legitimate objectives of both.

Initial Comments on the Draft Legislation

The nation is embarked on a fundamental transformation of the electric power infrastructure, probably on a greater scale than ever before. Tens of thousands of megawatts of aging coal plant have announced their retirements, whether as the result of emerging state and federal environmental regulation, or by virtue of competitive pressures that have rendered those resources uneconomic to continue operating. In addition, twenty-nine states and the District of Columbia have enacted or promulgated renewable portfolio standards, i.e. requirements that the state's electric power needs be met by a certain percentage of renewable resources by a date certain. And the Administration's proposed Clean Power Plan looks to the States to develop state implementation plans to reduce the greenhouse gas emissions of existing power plants. Even if not all these initiatives are finalized, the nation, through its retail ratepayers, will invest trillions of dollars over the next two decades in the reformation of an already aging electric power infrastructure. State and federal regulators will need to utilize every available tool to ensure that the goals are ultimately met, and in an efficient and cost-effective manner.

The draft legislation's goals in this regard are laudable, but appear to be guided by a perception that core infrastructure resource decisions, including fuel diversity, resource adequacy and reliability are determined by the RTOs and ISOs, with FERC oversight, rather than by the States.

As discussed earlier, FERC, and the wholesale markets that FERC regulates, perform an important but only a supporting role in the development of these resources. Section 4221 of Chapter 2 (Market Reforms) of the discussion draft directs "each regional transmission entity" (including presumably those that have not developed capacity markets) to assess whether its

“current market rules” meet a designated list of criteria, to identify “specific actions” to revise its rules so as to meet those criteria, and to then “establish[] a timeframe for implementation” of those “specific actions.”

The criteria include numerous subject areas that are expressly and exclusively reserved to the States, including resource adequacy and fuel diversity. As noted earlier, neither FERC nor the RTOs have authority to ensure resource adequacy or fuel diversity. To be sure, FERC’s unquestioned authority over wholesale rates can impact private and public resource decisions, but that is a far cry from a statutory mandate. As noted in yesterday’s testimony by FERC’s Arnold Quinn, Section 4221 could accordingly “cause unnecessary conflicts between federal and state regulatory efforts.” For example, opinions can and will differ as to what fuel diversity is appropriate in a given market. Each state typically has unique fuel diversity requirements, as evidenced by their RPS requirements and other resource choices, and there is no federal mandate with regard to fuel diversity. How, then, is an RTO to second guess or even supersede state choices on these questions?

Of potentially even greater significance is the draft bill’s direction that the RTOs “identify and address regulatory barriers to entry, market-distorting incentives, and artificial constraints on competition.” Simply stated, many of the significant resources that the states (through their resource plans or as directed by the federal government through the proposed Clean Power Plan) are seeking to develop may be extremely difficult to build without state incentives such as long-term contracts. Indeed, FERC’s evolving capacity market rules have specifically acknowledged this reality, creating market entry rules for these resources that balance FERC’s administration of a wholesale competitive market with the states’ legitimate reliability and environmental objectives. As Mr. Quinn notes, “some states may assert that what

an ISO or RTO deems to be a 'market-distorting incentive' is in fact a legitimate policy adopted by a state to meet its specific policy needs." FERC has repeatedly exercised its authority to seek to ensure that such needed, state-supported projects are allowed to compete in the wholesale markets without "distorting" those markets, and has refrained from passing judgment on the states' wholly legitimate exercise of its prerogatives. Section 4221 arguably pulls FERC and the RTOs into an unnecessary and potentially divisive debate, with no discernible upside, and the considerable downside of states coming to rely increasingly on the volatile short-term markets.

In summary, the scale of the task confronting the United States to replace its aging infrastructure and to confront new market and environmental requirements is enormous and unprecedented. The state and federal governments will need to mobilize all the tools in their tool kits to meet these crucial objectives. Some of those needs are being and will be met in some markets through the development of merchant plants, i.e. power plants that are built on "spec," with no underlying long-term contract to establish a stable revenue stream. Others will require substantial state and federal support, through tax credits, long-term power contracts, or other incentives. The center of this development will continue to be at the state level, with FERC and the RTOs playing the strong and necessary supporting roles that they have traditionally performed. The draft legislation appears to shift this center toward FERC and the RTOs, in an area where they lack authority under existing law. FERC has adequate authority under existing law to address and minimize potential "distortions" to the RTO markets that might arguably be caused by state policies or directives, while allowing the reliability and diversity objectives of the states to be met.

My company will continue its efforts to compete at the state and federal level to contribute to developing the new power generation resources that country will need in the years ahead.

CPV thanks the Subcommittee for the opportunity to present its views, and welcomes any questions you might have.

Mr. WHITFIELD. All right, thank you, Mr. Kelly, very much.

And our next witness is Mr. Christopher Cook, who is President and General Counsel, Solar Grid Storage Company. Thanks for being with us, Mr. Cook, and you are recognized for 5 minutes.

STATEMENT OF CHRISTOPHER COOK

Mr. COOK. Thank you, Mr. Chairman, Ranking Member Rush, fellow members of the committee. Thank you for the opportunity for us to testify here before the committee today on the discussion draft.

I am president and also cofounder of Solar Grid Storage. It is a new company. Quite small in the energy business. We provide a financed battery storage solution to commercial, solar, and wind installations, and we developed a product we call the power factor, which provides back-up power to those customers with a collocated solar or wind system at their site during grid outages.

In addition, and key to our business proposition, was FERC's issuance of Order 755, which opened ancillary services markets to new and fast responding technologies like ours.

Solar project developers are our key customers. We are focused on providing a finance battery solution to this market segment, as it is the fastest growing market segment in the energy business.

As I reference in my written testimony, not only is the industry growing rapidly, solar costs are declining. So pardon the pun, it has a very bright future.

We are—we currently operate four systems in the PJM ISO totaling 1.1 megawatts. So we are a very small company, but we are innovators in the energy space; a space where it is very difficult to innovate.

I would like to focus my comments on the discussion draft, Section 4221, particularly Section B, and 4231. We see for our business many valuable provisions in Subsection B. First though, I would point out that the title of the section discusses properly evaluating generating assets. As a storage asset, we are not either generation, we are also load, and it is difficult often for the utility industry and the ISOs to classify us. They try to put us in one category or the other. Storage is not generation. We can only take into our storage facilities in equivalent amounts of kilowatt hours what we put out. If we are storing solar energy, all we do is delay in time when that solar energy goes to the grid or to the customer.

The—excuse me. In Subpart B, the operational characteristics of generation of electric energy during emergency and severe weather conditions. That is principally one of the things that we offer to our customers. For typical commercial customers who install a solar system, when the grid goes down, that solar system no longer functions. When they add storage to that solar installation, that installation can function throughout the grid outage in combination with the onsite solar. It is very valuable. We are seeing very strong interest in the areas of the country where they have suffered natural and other disasters that have taken down the power grid.

One of the key sections in Subsection 4 directs FERC to promote advanced grid technologies. We are certainly one of the most advanced grid technologies. We dispatch our systems into the PJM ISO every 2 seconds. We monitor our systems on a continuous

basis. We are an incredible, fast-responding technology based on traditional grid resources.

In Section 5, and this is one of the keys for us, having FERC address regulatory barriers to entry. As a small company, and I would reflect the testimony of my co-panelist from APPA, it is very difficult for us to participate in these work groups and the other kinds of arcane procedures that both FERC and ISOs have implemented. We simply do not have the staff or the resources to adequately participate. So that—I mean, goes on as a continuous regulatory barrier to entry of our technologies.

Turning to Section 4231, the changes to PURPA. We would not support those changes. We feel that FERC had the appropriate balance in its Order 688, distinguishing between large generation systems above 20 megawatts that had open access to the grid, and those below 20 megawatts that did—on a rebuttable basis, did not have nondiscriminatory access to the grid. We feel that FERC struck the proper balance there, allowing a rebuttable presumption such that if there was an open access transmission tower for those small generators, the entity that was suggesting the small generation did not have open access could go to FERC and rebut that presumption. They have the resources. They have fast superior resources in the small generators in almost all cases, and are able to support that. In addition, the breakpoint of 20 megawatts is a good one. Typically, above 20 megawatts, those systems are all interconnecting at the transmission grid. Much more expensive projects, much more complex projects. Below 20 megawatts includes, under some of the FERC orders, systems down to the residential size. And can you imagine a residential customer who is installing solar on their house and perhaps a battery, with the potential opportunity to earn revenues from those systems in those grid markets, having to present their case at FERC that they are entitled to those PURPA qualifications?

Thank you.

[The prepared statement of Mr. Cook follows:]

TESTIMONY OF

Christopher Cook
President, Solar Grid Storage

BEFORE THE

HOUSE SUBCOMMITTEE ON ENERGY AND POWER

LEGISLATIVE HEARING ON

DISCUSSION DRAFT ON ACCOUNTABILITY AND DEPARTMENT OF ENERGY
PERSPECTIVES ON TITLE IV: ENERGY EFFICIENCY

JUNE 4, 2015



Solar Grid Storage LLC
8070 Georgia Ave, Suite 310
Silver Spring MD 20910
ccook@solargridstorage.com
301-637-3644

Mr. Chairman, and Members of the Subcommittee,

Thank you for the opportunity to provide testimony on the Discussion Draft on Accountability and Department Of Energy Perspectives On Title IV: Energy Efficiency. I am Christopher Cook, President of Solar Grid Storage and a co-founder of the Company. Solar Grid Storage (SGS) was formed in 2011 by a group of solar veterans who have developed an innovative financing solution that allows batteries to be added to solar PV installations. Our focus is providing grid services from storage batteries to facilitate increased resiliency of the grid while also addressing impacts from multiple intermittent distributed generation sources. We service commercial scale customers with our PowerFactor[®] 250kilowatt and 500kilowatt inverter/battery systems co-located at a PV customer's site. SGS's financing model integrates energy storage systems into new solar installations reducing up-front costs, enhancing grid stability, and providing additional host customer benefits -- most importantly continuous backup power. The ultimate goal of our novel energy storage application is to make affordable, solar energy a reality throughout the U.S.

SGS's business focus is in the PJM Independent System Operator service territory. We have 4 operating storage projects providing service to the PJM in its fast frequency regulation market established by PJM in response to FERC Order 755. Our pilot project at the Philadelphia Navy Yard is a stand alone battery system as part of the grid star project in Philadelphia. We also have 2 projects in New Jersey co-located with PV projects at a commercial customer's site. Our flagship project is a solar microgrid at the Konterra Headquarters in Laurel, Maryland. That 500kW project provides not only the PJM frequency regulation services but also backup power for the customer's 400kW PV parking lot canopy allowing the system to provide continuous

backup power to the commercial office building. Future plans will tie in the customer's on-site emergency backup diesel generator to provide more efficient use of the generator while also enhancing the duration of operations for our storage system.

In January of 2015, Solar Grid Storage solar sold its project pipeline and the four operating projects to SunEdison, an 8 billion dollar global leader in renewable energy development and finance. Solar Grid Storage is working in conjunction with SunEdison for future project development.

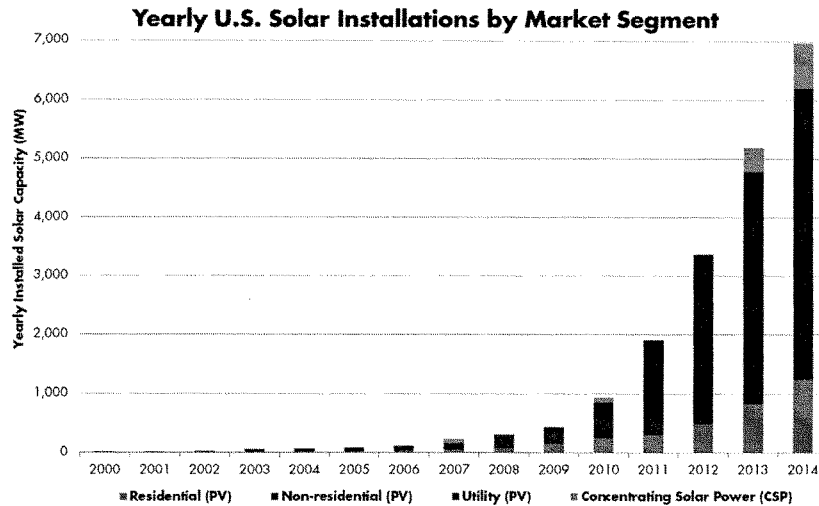
I. Introduction and background on the U.S. Solar Industry: Highlights & Future Prospects

SGS focuses on providing inverter/battery solutions for new commercial solar installations. That is because even though solar energy is a young industry, it is growing fast. In 2014, solar comprised 32% of all of the new electric capacity in the U.S.¹ Solar capacity in the U.S. now exceeds 20 gigawatts² which is enough to power 4 million homes.³ The following graph illustrates solar's remarkable growth since 2000, including anticipated installations this year:

¹SEIA, "Solar Data Cheat Sheet" (March 2015), a copy of which is included as Attachment 3.

²Id.

³ SEIA, "Solar Data Cheat Sheet."



This phenomenal growth is the result of private investment, technological innovation, a maturing industry and smart federal and state policies. The federal government has received a strong return on its investment of public dollars, with benefits to our economy that far exceed their costs.

Solar is an energy source available in every U.S. Congressional district. Although Germany's solar resource is the equivalent of Alaska's, which has comparatively less solar potential than most other States, Germany continues to lead the world in solar installations—with a cumulative 35.7 GWp installed through 2013.⁴ In June 2014, for the first time, solar

⁴ German Solar Industry Association, "Statistic Data on the German Solar Power (Photovoltaic) Industry" (April 2014), available at http://www.solarwirtschaft.de/fileadmin/media/pdf/2013_2_BSW-Solar_fact_sheet_solar_power.pdf

production met over half of Germany's peak demand.⁵ The United States, with its far better solar resources, could easily become the world leader.

Although solar is growing quickly, the nation has just begun to tap into its solar resources. Solar's potential to serve the nation is far greater than its remarkable success to date. Solar power transforms the endless, free energy we receive from the sun into electric power to drive commerce, industry and our way of life, at decreasing costs; without air, water or any other emissions; and with minimal environmental impact overall. Solar power plants can provide the nation with enough domestic, fully secure energy to meet the entire country's peak needs, using only a fraction of the solar resources available to us. A forecast published by the U.S. Energy Information Administration (U.S. EIA) projects that through 2040, nearly 40 GW of solar capacity will be installed in this country – approximately three times the currently installed solar capacity, and nearly half of the renewable energy expected to be deployed over the same timeframe.⁶ Our nation can – and should – depend on its exceptional solar resources to power its exceptional future.

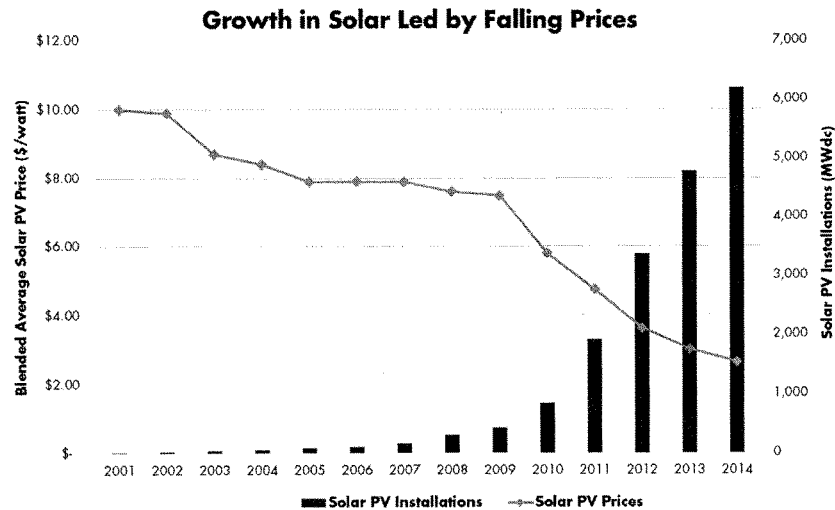
As solar provides increasing amounts of energy to the country, its costs are decreasing dramatically. As shown in the charts below, PV system prices are generally decreasing in every market segment, year-over-year.⁷ Solar deployment is paying great

⁵ Germany Trade and Invest, "German Solar Breaks Three Records Within Two Weeks" (June 18, 2014), available at <http://www.gtai.de/GTAI/Navigation/EN/Meta/press.did=1034630.html>

⁶ U.S. EIA, "EIA Projects Modest Needs for New Electric Generation Capacity" (July 16, 2014), available at <http://www.eia.gov/todayinenergy/detail.cfm?id=17131> (summarizing U.S. EIA's projection, in its "Annual Energy Outlook 2014," that 39 GWac of the total 83 GWac of renewables in 2040 would come from solar).

⁷ SEIA, Solar Data Cheat Sheet

dividends to the American economy and continues to act as catalyst to drive down future costs.



The solar industry relies on an increasing labor force and a host of other domestic industries throughout the country, all of which are sharing in solar's success. With increased solar deployment, both the number of direct and indirect jobs, and companies in solar's supply chain, have grown as well, and now 174,000 Americans owe their jobs to solar.⁸

Solar offers the nation an inexhaustible supply of energy that it can rely on to power the future, while protecting the nation's environment and conservation values. We are grateful for the Subcommittee's support for this emerging, and increasingly important, national asset.

⁸ The Solar Foundation National Solar Jobs Census, available at <http://www.thesolarfoundation.org/solar-jobs-census/national/>.

II. Comments on the Discussion Draft

I would like to focus my testimony and comments on Chapters 2 and 3 of the Discussion Draft. Under Chapter 2, the FERC would be tasked with directing each of the ISO's to review the market rules and practices of the ISO's to look into the proper value differing types of generators provide. Among those are generators that provide service during emergency and severe weather conditions (Sec 4221(b)(2)(B)) and frequency support (Sec 4221(b)(2)(C)).

SGS's storage systems are capable of providing not only backup power for customers with on-site PV systems but also the frequency regulation service for ISO grid functions. SGS fully supports this section of Chapter 2 and we believe it will enhance our ability to offer the types of services we offer to customers in the PJM territory in other areas if other ISOs effectively mirror PJM's market.

Under subsection (b)(4) FERC and the ISO's are directed to promote the equitable integration of advanced grid technologies (SGS's systems are an advanced grid technology) and under subsection (b)(5) to identify and address regulatory barriers to entry.

On that last point the regulatory barriers for new technologies like storage are myriad. Most of the operating practices and regulations for utility grid service never envisioned that advanced technologies like storage could play a valuable role for grid support. Moreover, the concept that these service could come from customer sited facilities is both unique and contrary to the historic utility business model of central generation and 100 percent of electric services provided by the utility. We are constantly encountering regulatory barriers because our technology doesn't fit into any category historically considered a utility service.

First and foremost among the regulatory barriers is that storage is often

characterized as generation even though it is not technically a generation source. Regulatory rules meant to apply to generators are often applied to storage even though it makes little sense. For example, in the frequency regulation markets if an ISO does not consider that storage will hit a depletion point and must be recharged at that point, its rules can accidentally bar participation by storage units even though they can provide the regulation service with certain accommodations. The PJM ISO “balances” its regulation signal so as not to deplete a battery. It means that for all of the discharges over an hour, the regulation signal will be balanced with charge signals so that a battery providing the regulation service will be neither depleted nor overcharged in any hour. An ISO that does not provide a balanced signal has created a barrier to their market for storage technologies.

I would suggest that it might add clarity to the Discussion Draft to specifically mention storage as a technology anywhere “generation” is referenced.

An overarching theme we promote at SGS is that **customer sited storage** should be allowed open access to any and all ISO markets where the storage can provide an equivalent or better service as either another resource or storage connected directly to the utility grid. In most cases, the storage located at a customer’s site can provide the same level of grid service as for example a substation sited storage facility but when the storage is customer located it provides the critical backup power to the customer during grid outages. A substation based storage system does customers little good when the outage is downed lines between the customer and the substation.

Comments on Chapter 3 of the Discussion Draft

My understanding of the purpose of Chapter 3 is to change the gravamen of FERC

order 688 which determined that certain PURPA requirements for qualifying cogeneration facilities and small power production facilities did not apply where those facilities had access to open transmission markets. In Order 688 the FERC created 3 rebuttable presumptions including the following:

“... the Final Rule establishes a rebuttable presumption that QFs with a net capacity no greater than 20 MW, **do not** have nondiscriminatory access to wholesale markets. Unless an electric utility seeking the right to terminate its requirement to purchase small QF power specifically rebuts this small QF presumption, and that electric utility’s request is granted by the Commission, a small QF would be eligible to require the electric utility to purchase its electric energy.” [emphasis added]

The language in the discussion draft would take away not only the rebuttable aspect of the presumption -- that smaller generators do not have open access -- but would in fact change the presumption to one of equal access to the markets.

Having worked over the past 12 years to develop small solar projects (all less than 20MW) and now small storage projects, my experience has been that the FERC was correct in its ruling and that these scale of projects do not have open access to wholesale markets. In many of the ISO’s there are minimum size restrictions that can block smaller systems from any access to ISO markets. High costs to become members of the ISO, the need to have personnel to participate in the functions of the markets, sophisticated computer equipment to interact with the ISO markets as well as the arcane nature of the ISO rules and even discussions are all barriers to small systems having open access.

FERC struck a proper balance in Order 688 making a rebuttable presumption that larger generators had open access to transmission markets but also a rebuttable presumption that smaller systems did not. That balance includes the opportunity for any utility or ISO to

rebut the presumption with a showing at FERC. Most utilities are well versed in FERC practice and procedure and have the ability to present such a rebuttal if the facts of the situation support the presumption. FERC staff have described the pre-PURPA world in this way: utilities were not generally willing to purchase non-utility output or were not willing to pay an appropriate rate for that output. For SGS and many small generator developers in many jurisdictions, that description of the past sounds very much like the present.

I would urge the subcommittee not to upset the balance of FERC Order 688 and to maintain the rebuttable presumptions regarding access to open transmission markets before jettisoning the protections for small generators available in PURPA Section 210.

III. Conclusion

Thank you once again for inviting Solar Grid Storage to submit this testimony. SGS is grateful for the opportunity to share insights into our business model and our struggles and successes in the utility business. We look forward to working with the Subcommittee to establish the long-term, stable policies needed to make the most of storage as an advanced grid technology and to provide the backup power and resiliency to customers that comes with adding storage to their distributed wind or solar systems. We look forward to participating in the delivery of DG benefits to the nation in the form of large quantities of cost-effective, clean and sustainable power, growing numbers of jobs throughout the country, and outstanding economic opportunity.

Mr. WHITFIELD. Thank you, Mr. Cook.

Our next witness is Mr. Jonathan Weisgall, who is the Vice President, Legislative and Regulatory Affairs, for Berkshire Hathaway Energy.

Mr. WEISGALL. Thank you, Mr. Chairman.

Mr. WHITFIELD. Thanks very much for being with us. You are recognized for 5 minutes.

STATEMENT OF JONATHAN M. WEISGALL

Mr. WEISGALL. I appreciate it. Thank you, members of the subcommittee.

At Berkshire Hathaway Energy, we own three regulated utilities that serve 5.3 million customers in 11 States. Like Mr. Cook and Ms. Kelly, I do want—I also want to address Section 4231 of your discussion draft on PURPA, the Public Utility Regulatory Policies Act of 1978.

PURPA mandates utilities to buy renewable energy from QFs, qualifying facilities. That law today is imposing significant and unnecessary costs on utility customers. For example, it requires a utility to buy electricity from a QF regardless of whether the utility needs that power. PURPA contracts are not subject to the same resource planning and cost scrutinies of the utility decisions, and they can cause operating inefficiencies and reliability issues because the host utility has no control over where they are sited or integrated into its system.

Let me give you a specific example. The long-range plan for our PacifiCorp utility, approved by our State regulators, shows no need for additional generation until 2028. However, over the next 10 years, PacifiCorp must purchase 39 million megawatt hours under its PURPA obligations, at an average price of \$66 per megawatt hour, although the average market price today is \$38; 43 percent lower. That means that our customers must pay \$1.1 billion above market prices for PURPA-mandated power that they don't even need. And this is not an isolated example. Many other utilities are facing similar dilemmas.

Now, Congress amended PURPA in 2005 to relieve a utility of its mandatory purchase obligation if it can show that the QF can compete to sell its power, in other words, has access to a competitive market run by an RTO or an ISO. That is actually why many of you have not been hearing about this issue from your constituents because your local utilities belong to one of these competitive markets; PJM, ISO New England, New—you know, New York ISO, MISO, and the like. But PURPA and FERC's overly restrictive implementing regulations have not kept pace with market changes in our industry. Today, new energy in balanced markets, competitive resource solicitations, and FERC's interconnection rules for smaller facilities have effectively removed any remaining barriers for new entrants, including QFs, to supply energy to markets where the host utility is an organized market or not. PURPA needs to be modernized to recognize these changes.

My written testimony details the technical suggestions that we and the Edison Electric Institute have for modernizing PURPA. The first is to expand the definition of comparable markets that are eligible for termination of the mandatory purchase obligation to in-

clude voluntary, auction-based energy imbalanced markets, and other subhourly markets. The second is to eliminate the presumption in FERC Order 688 that QFs under 20 megawatts lack non-discriminatory access to markets, provided that the QF is eligible for service under FERC-approved tariffs and interconnection rules, and can participate in utility competitive solicitations. The third is to terminate the mandatory purchase obligation upon a State regulatory agency determination, if certain conditions are met. And the fourth is to prevent larger QF projects from being divided into smaller ones to essentially gain the so-called FERC 1-mile rule.

Now, some say PURPA should be repealed outright. We don't believe that is the right approach. Our proposals are not about removing the mandatory purchase obligation where competition does not exist. Not all utilities operate in States where there is an organized market. Not all State regulators require competitive bidding when a utility is looking to secure new or replacement power. In those States, PURPA still serves a useful purpose, and our proposals would not change that. Others have asked that if PURPA was passed to promote renewable energy, aren't these suggestions designed to inhibit renewable energy. My answer is an unqualified no. After 37 years since PURPA was passed, renewable energy is flourishing, and our company is among its strongest proponents. Indeed, not including our original geothermal assets, we have invested nearly \$18 billion in the last decade alone in wind and solar projects in 10 different States. But these projects have been driven by policies other than PURPA. They have been driven by State renewable portfolio standard mandates, Federal tax incentives, technological improvements, and stricter EPA air regulations. Are these changes designed to inhibit expensive and gained renewable energy? Yes. But regardless of your views on renewable energy, everyone should be in favor of fair market rules, as well as getting customers low-cost electricity, not high-cost electricity caused by what is now outdated legislation.

Thank you for the opportunity to share our views. Look forward to any questions you may have.¹

Mr. WHITFIELD. Thank you very much.

And our next witness is Mr. William Scherman, who is a Partner at Gibson, Dunn & Crutcher. Thanks for being with us, and you are recognized for 5 minutes.

STATEMENT OF WILLIAM S. SCHERMAN

Mr. SCHERMAN. Thank you, Mr. Chairman, and Ranking Member Rush. I appreciate being here. I have to say at the outset, these are my own views and not the views of any of my clients.

Let me start by saying there must be meaningful and structural due process reform of the FERC enforcement process, both substantively and procedurally today. Entities subject to the FERC enforcement process do not receive due process of law. It is not only important that they receive due process of law, but without it, the very competitive markets that this committee is trying to promote in other sections of the bill will be harmed, as people and market

¹ Mr. Weisgall's prepared statement has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/HHRG-114-IF03-Wstate-WeisgallJ-20150603.pdf>.

participants continue to flee from markets, and liquidity is decreased and price discovery becomes nonexistent. It is simple fairness to require FERC to give people exculpatory or potentially exculpatory information. It is simple fairness to allow access to transcripts. It is simple fairness to allow subjects of investigation comparable access to the adjudicator, the FERC Commissioners who decide their case.

What you heard yesterday was none of these reforms are needed because, at the end of the day, many participants have the right to go to Federal court to seek review of FERC enforcement matters. If only that were true. What occurs today is that, in those instances where you have to go through a FERC administrative process, the Federal rules of evidence do not apply, the Federal rules of civil procedure do not apply, and when the case gets to the Court of Appeals, the record that the FERC has developed under flawed procedures is given deference. And even when you can get the Federal District Court under de novo review, the FERC today, in two pending cases, is doing everything possible to restrict having the ability to have a full trial in Federal court, with the full rights of discovery, and the full rights to have meaningful opportunity to test FERC's cases. That is the process that FERC is trying to tell you is occurring—is not occurring today, and why we badly need procedural reforms.

I also strongly support the section of the bill that would require FERC to address the existing RTO and ISO markets. There is strong evidence to suggest that the existing ISO and RTO markets are no longer producing competitive results. There is strong evidence to suggest that they are no longer balancing supply and demand. It has not been since the Federal Power Act was first enacted, and the just and reasonable standard was adopted, that the Congress has helped to define what constitutes just and reasonable markets, even though these markets have become, as Ms. Kelly said, incredibly complicated and very much complicated to participate in. It is time the Congress help define what constitutes just and reasonable markets in this current market environment.

What you heard yesterday in response to a question from Mr. Shimkus was that the FERC is working on these matters. Mr. Shelk talked about that this morning. The FERC has been working hard on these matters, but without the Congress spurring the FERC to act, either through legislation or through a letter from the committee asking them to act by a date certain, many of us are concerned that the FERC is hopelessly deadlocked and cannot achieve a consensus on these important initiatives. That section of the bill might very well spur action, and I support it completely.

I agree with the PURPA reforms that have been put in the bill. I won't spend a lot of time on that, but I want to talk about three parts of the investigation process in a little bit more detail in the few minutes I have left.

Yesterday, you heard that there is a difference between the adjudicative phase and the investigatory phase of FERC investigations. That is an illusion. It does not exist. How do we know that? Because in April of 2013, the FERC ruled that a show cause order is not part of an adjudication; it is part of the investigatory process. That is a FERC order. The reason why FERC wants to give you

this illusion that there is an adjudication at FERC is because they understand and have admitted, in the law review article that was cited in their testimony, that in the investigation stage at FERC, witnesses and subjects of investigations do not receive due process. That is in the law review article that they cited to you yesterday. So in order to get around this admission, they have to try to convince the Congress that there is a real adjudication phase at FERC. There isn't. It is not an adjudication phase when a witness gets—a subject gets no rights of discovery, gets no ability to test the other side's case, gets no access to the decision-maker. That is not an adjudicatory process.

You heard yesterday that the Brady reforms in the bill are not necessary, and they would be unparalleled. That is shocking. The language in the bill comes straight out of district court cases on Brady, and if, in fact—and, in fact, those cases have been cited to the Commission in a number of key cases. That is absolutely not true. But there is a simple fix. Take out the word helpful that Mr. Parkinson objected to yesterday, and put the word favorable in. In two places, delete the word favorable, put the word—delete the word helpful, put the word favorable in. There is no possible way at that point that they could object to that.

Finally, the staff has now admitted—the FERC enforcement staff has now admitted to this committee that they have violated their own regulations and the Administrative Procedures Act at least 12 times in denying access of a witness to their transcripts. That is now on the record in this committee. So if there any doubt that these reforms are needed, I would suggest look at the record.

Thank you.¹

Mr. WHITFIELD. Thank you very much, Mr. Scherman. And thank all of you for your time.

I will recognize myself for 5 minutes of questions.

And I would like initially to just focus on 4231, relating to so-called PURPA reform. Ms. Kelly, you had indicated that you felt like there should be some reform perhaps, but our language you did not particularly agree with. Would you explain more detail what you would recommend?

Ms. KELLY. The situation is this. The way the provisions that you have drafted are written is—applies to, in effect, to State-regulated facilities, or FERC-regulated utilities. My members are units of State and local government, and by and large are regulated at the local level by their governing boards. So the way the language is written, and this may well have been an oversight, was just in a way that—

Mr. WHITFIELD. You are left out.

Ms. KELLY [continuing]. We don't qualify.

Mr. WHITFIELD. You are left out.

Ms. KELLY. Yes, we are left out. Thank you.

Mr. WHITFIELD. OK.

Ms. KELLY. That is the long and the short of it.

Mr. WHITFIELD. OK. What is that? OK. And, Mr. Weisgall, now, you had mentioned that you are paying something like \$68 a mega-

¹Mr. Scherman's statement has been retained in committee files and also is available at <http://docs.house.gov/meetings/IF/IF03/20150603/103551/HHRG-114-IF03-Wstate-SchermanW-20150603.pdf>.

watt for power, and the actual cost is \$30-some, and parts of your operation, I guess, was in California or Portland, or——

Mr. WEISGALL. Northwest, yes. Um-hum.

Mr. WHITFIELD. Yes. Now, is that a result of the calculation of the avoided cost, or what—is——

Mr. WEISGALL. Yes. I mean the avoided cost calculations are made by State regulatory agencies. PURPA contracts have lengthy duration. So we are looking at contracts with fixed price costs for a long period of time. Markets fluctuate, that is why we prefer the competitive process in the market, but when you are stuck with a PURPA contract, historically, those have tended to be way above market. Now, that is not a congressional problem; that is more a result of State regulatory agencies in that avoided cost proceeding. And figuring out avoided cost is really a full employment job for lawyers, and has been for many, many years under PURPA. It has been very complicated, but the tendency has been way above market cost.

Mr. WHITFIELD. Yes. So, Ms. Kelly is avoiding costs and the issue from your perspective, or—your—go ahead.

Ms. KELLY. It is less of an issue for us, the actual calculation that was referred to, because in the case of State-regulated utilities, they are developed by the State PUC——

Mr. WHITFIELD. Um-hum.

Ms. KELLY [continuing]. And they can be very administratively determined.

Mr. WHITFIELD. Um-hum.

Ms. KELLY. At the local level, you know, we have a better read on what our potential options are, so we have a little more leeway in setting avoided costs.

Mr. WHITFIELD. Um-hum.

Ms. KELLY. So it is not—that part is not as big a problem for us as the fact that we may be—in effect, it is a put at a certain price, and we have to take it——

Mr. WHITFIELD. Right.

Ms. KELLY [continuing]. Whether we need the power or not.

Mr. WHITFIELD. In 1978, when PURPA was adopted, I don't think that many people thought the investor-owned utilities would also be qualifying facilities, at least initially. What percent of qualifying facilities today would you say are owned by investor-owned utilities? Do any of you have any idea on that at all?

Mr. SHELK. I would think it is pretty low to almost nonexistent, given the size. If I could just add the issue—as I indicated earlier, 95 percent of our member assets are in the RTOs, so this is not an issue for our members, but I can see it is an issue for the independent power producers outside of the RTOs——

Mr. WHITFIELD. Um-hum.

Mr. SHELK [continuing]. And the reason is, notwithstanding what Mr. Weisgall said from their perspective, and I would urge you to talk to them, if you don't at least address what it means to have a competitive solicitation, I think the bill has the right directional idea. I was very much involved in the compromise negotiation in 2005. The issue, however, is just because a State has a competitive solicitation on the books doesn't mean it is a fair one. So you may want to think about at least expanding what type of competitive so-

licitation you think would qualify, because right now, the utilities, like Berkshire Hathaway, outside the RTOs, they get to run the solicitation, they get to put their own projects up, and miraculously, they pick themselves, you know, well over, you know, 95 percent of the time. So I think you would want to be clear that—in the draft what type of competitive solicitation——

Mr. WHITFIELD. Yes.

Mr. SHELK [continuing]. With a third-party——

Mr. WHITFIELD. Yes.

Mr. SHELK [continuing]. Evaluator would qualify for the exemption.

Mr. WHITFIELD. Yes.

Mr. SHELK. Otherwise you risk——

Mr. WHITFIELD. Yes.

Mr. SHELK [continuing]. Reducing competition——

Mr. WHITFIELD. Yes.

Mr. SHELK [continuing]. In those regions.

Mr. WHITFIELD. And would one of you make just some brief comments on the transparency issue at the RTOs relating to price? I think you and Ms. Kelly had indicated that was an issue from your perspective.

Ms. KELLY. Yes, that is an issue, and thank you for the question. I think one of the things that strikes us with some regularity is the volatility in the prices. For example, in capacity auctions, prices can vary very substantially from auction to auction, both up and down. It is unclear why that happens. The data that goes into those prices is closely held. We have talked about increased transparency of bids and offers in the past. A lot of other people have opposed that, so that has not yet happened. We—actually, it was considered in the stakeholder process back in 2008, 2009, at our request, but shockingly, by the time it got done with the stakeholder process, the consensus was that that wasn't required.

Mr. WHITFIELD. Um-hum.

Ms. KELLY. So there have been issues with that in the past.

Mr. WHITFIELD. And I would at some point like to discuss in more detail the phasing-out of capacity markets in the east, and I think you made reference to that as well.

Ms. KELLY. I would be happy to do that.

Mr. WHITFIELD. OK.

Ms. KELLY. I would note that that is a longer-run prescription. These markets are very complex, and they do operate on a 3-year forward basis.

Mr. WHITFIELD. Yes.

Ms. KELLY. So we are not saying that that is something that, you know, can be done in a flash cut. We understand it is——

Mr. WHITFIELD. Yes.

Ms. KELLY [continuing]. A complicated——

Mr. WHITFIELD. Mr. Scherman, do you want to make a comment?

Mr. SCHERMAN. Yes. I just think it is important for the committee to understand that when a competitive solicitation is run by a utility, if that utility would like an affiliate to participate, the FERC has very stringent rules called the Edgar Allegheny Rules. I won't bore the committee with the details.

Mr. WHITFIELD. The Edgar Allegheny Rules?

Mr. SCHERMAN. They are based on two cases. Everything has to have a name, Mr. Chairman.

Mr. WHITFIELD. Yes.

Mr. SCHERMAN. There is an Edgar case and an Allegheny case, and so it has become known as the Edgar Allegheny Rules.

Mr. WHITFIELD. Right.

Mr. SCHERMAN. They are very prescriptive as to how the evaluation has to be done by an independent evaluator, what has to go into competitive solicitation, and how that record has to be developed before a utility can pick an affiliate. Those rules are very robust, so it is not as easy as the utility just picks its affiliate.

Mr. WHITFIELD. Yes.

Mr. WEISGALL. And, therefore, Berkshire Hathaway Energy sometimes loses.

Mr. WHITFIELD. OK. I want to just—

Mr. SHELK. But they only apply in the FERC context, they don't apply at the State level when the decisions are made to select which projects—

Mr. WHITFIELD. Yes. Yes.

Mr. SHELK [continuing]. So it is sort of comparing apples and oranges.

Mr. WHITFIELD. Do you know if Exelon and the Exelon Nelson case in Texas appealed that Fifth Circuit Court of Appeals ruling?

Mr. SCHERMAN. I do, and I believe they were not successful.

Mr. WHITFIELD. OK, thanks.

At this time, recognize the gentleman from Illinois, Mr. Rush, for 5 minutes.

Mr. RUSH. Thank you, Mr. Chairman.

Mr. Kelly, in your written testimony you argue that Section 4221 as currently drafted may result in an unintended consequence of putting FERC and the RTOs into an unnecessary and potentially divisive debate, and result in States having to rely increasingly on the volatile short-term markets.

My question to you is what recommendations, if you have any, that you would suggest to this committee to put improving the language in Section 4221, or do you believe this entire section is of no use and may even be counterproductive?

Mr. KELLY. No, there are certain sections—certain parts of the section that I think have value, but I think we look at traditional function and role of the States and their public service commissions and legislature in determining, you know, such as I believe it is 2(a), operational characteristics, the generation of electric energy on a continuous basis. That is a State—ultimately a State issue. Whether or not the State is going to site, for instance, dual fuel generation for us in the natural gas generation, they request or require at times that you have oil available so that you can run for a minimum period of time. The ISOs and RTOs have rules as well, and there are some payment structures in place that ultimately you—force you to have that ability, or penalize you if you don't.

Mr. SHELK. Mr. Rush—

Mr. RUSH. Yes.

Mr. SHELK [continuing]. If I could just add briefly—

Mr. RUSH. Yes.

Mr. SHELK [continuing]. We don't view the section or read the section the same way Mr. Kelly does. It is not changing what is a bedrock principle of the Federal Power Act, which is that the Federal Government, through FERC, has jurisdiction over the sales of electric energy, interstate commerce, and transmission. That has not changed at all. What the section says is to the extent FERC does things, and FERC does important things, we may disagree about how they do them but the wholesale markets that FERC administers for energy and capacity are what supply the power in Illinois and other States in the committee where the RTOs exist. And so FERC does decide the market rules. Sue and I may disagree on how they do it, but FERC is the agency that decides how wholesale markets operate. That has been upheld by the courts. So I think the section, at least the way we read it, is directing the Commission to consider a range of issues; some we like, some we don't, but I think it is a pretty good balanced list directed at FERC. It would not upset the Federal-State balance.

Mr. RUSH. Are there any other witnesses who might want to weigh-in on this?

Ms. KELLY. Yes.

Mr. RUSH. Ms. Kelly?

Ms. KELLY. First of all, I would note that the way the section is set up, and I noted this in my written testimony, is it directs each RTO to develop in consultation with the stakeholders. So at the very get-go you are sending it off to the stakeholder process. And that is an endless frustration loop for my members for the last 10 years because those processes, especially in the RTOs where the market, you know, problems are the most acute for them, the large generation and transmission asset owners have a—hold a great amount of sway, for the reasons in my testimony. So that right there is a problem.

Some of the provisions of the things that they are supposed to consider, I think, are very salutary. Others I think are less salutary. But to me, the immediate problem is it goes off to the stakeholder process and, you know, that is something you all probably need to look at more carefully. Thank you.

Mr. RUSH. Mr.——

Mr. SCHERMAN. I think the simplest way to fix that problem is to make it clear that when the Commission is exercising the authority in the section, that it is being done pursuant to Federal Power Act, Section 206. And, therefore, when the RTOs and ISOs have to respond, they have to make a filing under the Federal Power Act to comply with those specific criteria. And at that point, there will be no doubt that it is wholesale only and not trying to affect the retail market.

The second point is absolutely what Ms. Kelly—is absolutely true, the current stakeholder and governance process of the RTOs is so cumbersome and so complex that it leads to least cost, least common denominator decision-making that is frustrating innovation and stifling competition. The Congress really does need to address that if the FERC can't.

Mr. RUSH. Mr. Cook?

Mr. COOK. Thank you. I think the concept behind Section 4221 is good, particularly the things that direct FERC and the ISOs to

look at advanced grid technologies, and to look at the kinds of regulatory barriers that exist in incorporating those technologies into the grid. Our technology is a customer-sided technology, and it really makes some of the ISO leaders' heads spin that customer-sided technology——

Mr. RUSH. Um-hum.

Mr. COOK [continuing]. Could provide transmission grid services, but yet, in fact, we do that. We dispatch our systems as a virtual power plant.

Mr. RUSH. Um-hum.

Mr. COOK. I would agree, however, with my fellow panelist, Ms. Kelly, that the stakeholder process is extremely cumbersome for small companies like ours. Being able to dedicate the kinds of resources that are necessary to them for daylong meetings that occur every other week, that could go on for 6 to 18 months, is virtually impossible. So our voice does not share the same weight as the voice of the traditional transmission owners, the big utilities that are involved in those processes.

Mr. RUSH. Um-hum. I want to thank you. Mr. Cook, I have a few more minutes, and in your testimony, you state that you believe that FERC struck a proper balance in Order 688. With this presumption, the larger generators had open access to transmission markets, but also a rebuttable presumption that smaller systems do not. What changes do you think are necessary in the discussion draft in order to maintain the balance of FERC Order 688, and to maintain the rebuttable presumptions regarding access to open transmission markets?

Mr. COOK. Well, the simple response would be no changes are necessary. I believe that that is the proper balance. The new language in Section 4231 would change that presumption, and says specifically that generators of any size are presumed to have open access. I don't believe that is factually correct. The small generators typically have barriers. If you are a 100 kilowatt generator, for example, in many ISOs you can't participate in any of their markets simply because of your size. They arbitrarily set the threshold of participation at 1 megawatt. So there are numerous different barriers that small generators face.

I believe that what FERC did was to say, well, if you have access to an open access market, there is a presumption for the big generators that you don't have—need any of those protections. But there is a different presumption than on the small generator side, you do need those. It is a rebuttable presumption, so it is not guaranteed that you are going to get those protections. In addition, I think on the avoided cost question, the issue of the proper setting of avoided cost is done by the utilities and the State regulators. The small generators that avail themselves of that avoided cost typically, again, do not have the same representation in those proceedings. So if there is an error in the avoided cost calculation, I think it is incumbent upon the participants in that proceeding to properly set that so the avoided cost is truly reflective of a utility's cost, and there isn't an overpayment of the small generators.

Mr. RUSH. Thank you, Mr. Chairman——

Mr. WHITFIELD. Yes.

Mr. RUSH [continuing]. For your generosity.

Mr. WHITFIELD. Yes. Well, you know, these issues are so simple and not very complicated, that we don't need a lot of time to talk about them.

Ms. KELLY. Might I just say one thing to your—

Mr. RUSH. Yes, please.

Ms. KELLY [continuing]. Question, Congressman Rush? I would just note that there are also small utilities in addition to small generators, and for some of them, the 20 megawatt cutoff is a lot bigger than they are. So—and I actually, back in private law practice, had an—a rural electric co-op client who was asked, in effect, to purchase the output of a small generator, much larger than it was, or to wheel that out when that was, you know, bigger than its entire system. So you need to be—

Mr. WHITFIELD. Yes.

Ms. KELLY [continuing]. Sensitive to it on both sides.

Mr. WHITFIELD. Yes.

At this time, recognize the gentleman from Virginia, Mr. Griffith, who understands all of this completely, for 5 minutes.

Mr. GRIFFITH. Well, thank you, Mr. Chairman. And, you know, I am just a simple country, small town lawyer. But listening to Mr. Parkinson's testimony yesterday, I came away clearly, from his initial testimony, he backed away from it a little bit, in fairness, but came away from it initially believing that our system does not allow due process, and that it is not fair to those people who are being accused of having manipulated electric rates or—et cetera.

Mr. Scherman, I gathered from your testimony that I might have had the right sense.

Mr. SCHERMAN. Yes, sir, I fully agree. I have great—and let me just state, none of this is personal. Mr. Parkinson is a fine fellow, Chairman Bay is a fine fellow, but the due process people receive at FERC today is in name only. The FERC is doing everything possible to frustrate constitutional due process requirements. And all you have to look at, Mr. Griffith, is the disproportionality between—in the most—in the current pending cases, between what the FERC is alleging as the market harm and the size of the penalties. And if I could just enter a couple of those into the record.

Mr. GRIFFITH. Please do.

Mr. SCHERMAN. In the current Maxim Power case, the FERC has alleged a \$5 million civil penalty with zero unjust enrichment, zero disgorgement of alleged unjust profits. In the current, Powhatan case, the disproportionality between the alleged disgorgement and civil penalty is 634 percent. In the current BP case pending before the Commission, the disproportionality between the civil penalty that is being sought and the alleged unjust enrichment is 3,500 percent. In the Barclays case, the disproportionality between the alleged unjust enrichment and the civil penalty is 1,300 percent. In the Lincoln case, the disproportionality is 1,300 percent.

So if you just look at whether the proportionality between the alleged unjust enrichment, the alleged amount that they shouldn't have earned, and the civil penalties, it is clear there is no proportionality in the way the FERC is administering the enforcement process.

Mr. GRIFFITH. Well, and I appreciate that testimony. I was struck with just the basic principles of due process that have

evolved over the years in the Anglo-American system when, you know, I heard things like, you know, we don't really want third parties to have to worry about Brady, in other words, information that might say the person or the accused didn't do what they have been accused of. Well, a third party shouldn't be burdened with that. That bothered me. And then the whopper of all, and the defense was, well, other people do it. I don't accept that for my children, and I am not going to accept it from the Federal Government, of which I am a representative of the people, was, well, you can't really talk about settlement with the Commissioners because they are part of the prosecution team, because we have an attorney-client privilege with them and we don't want that to be violated in any way. Say what? There is an attorney-client privilege between the trier of fact and the investigators who bring the case? That just struck me as abhorrent to the American legal system. Do you agree or disagree, and what are your comments?

Mr. SCHERMAN. I fully agree. The Commission is applying the wrong Brady standard. It is clear from the testimony that they are applying the post-trial Brady standard, not the pre-trial Brady standard.

Other regulatory agencies, including the CFTC, rejected as part of their process the post-trial Brady standard over 20 years ago. This is not a new concept.

On the settlement process, it is like—it is the classic case of trying to negotiate for a car. You negotiate with the enforcement staff, only to be told, oh, I have to go talk to my manager. Well, we know what happens every time you go talk to your manager. And in a recent case where I asked directly to negotiate with the Commissioners on the settlement, and I said I would be more than happy to have the enforcement staff in the room at the time, I was told it was against policy to talk directly to the Commissioners, even though I said I would be happy to have the enforcement staff in the room at the time.

Mr. GRIFFITH. Sure. And I can understand that while they might want to have ex parte communications with the Commissioners, but if they are part of the prosecution team, it does seem kind of strange.

Do you think we would be better off allowing the Commissioners to continue to have the settlement power, but just move any disputes directly to the district court where you can have a legitimate due process-filled trial?

Mr. SCHERMAN. I think that would be a very good suggestion, if the Commission itself would recognize the words de novo review in the statute mean a trial. What is happening in the Lincoln case and the Barclays case now is the Commission is taking the absurd position that the words de novo review does not lead to a full trial, does not lead to discovery, does not lead to the right to confront witnesses. They are taking the position that a de novo review is essentially no different than a court review, where the Commission gets deference on the record that they have built in a flawed process.

Mr. GRIFFITH. Yes.

Mr. SCHERMAN. So if the Congress would clarify and confirm the existing language means what it means, and it should apply to the Gas Act, the Power Act, the NGPA, that would help a lot.

Mr. GRIFFITH. Well, and even a simple small town lawyer knows that de novo means you get a new one. That is what novo means, new. And that if—that was their defense yesterday, in part, was that, well, you can always go to the district court. I would think that would be a big fix if you could actually get a new hearing with all of the discovery rights that you get in—

Mr. SCHERMAN. Absolutely.

Mr. GRIFFITH [continuing]. The normal court system.

Mr. SCHERMAN. The Power Act supposedly provides for that, but apparently, the Commission doesn't agree with that.

Mr. GRIFFITH. Well, I appreciate it.

My time is up. I yield back. Thank you, Mr. Chairman, for this important hearing.

Mr. WHITFIELD. You know, I had about 7 minutes. Mr. Rush had 7 minutes. Do you want to take another couple of minutes, and then we will give everybody 7 minutes, because this is a complicated issue and we want to give everybody an opportunity. So if you want to go for another minute and a half.

Mr. GRIFFITH. Well, and I will say that I was a little concerned that the Commissioners are part of the prosecution team, as we have previously discussed. And do you think that that is a new development, or is that something that has been evolving over the years?

Mr. SCHERMAN. It is both. It is certainly something that is not a new development, but it has evolved over the years in a much greater sense. And part of the problem is, when I was general counsel of FERC, the enforcement process reported to the general counsel. There was a layer between the enforcement process and how that was administered on a day-to-day basis, and the Commission. What you heard in Mr. Parkinson's testimony was that there is free regular communication between the investigators, the prosecutors, and the ultimate decision-makers. And that because—and just human nature would suggest that that cannot be a fair adjudication. It has nothing to do with the integrity of the Commissioners personally, but if you are told for 5 years that somebody is guilty of fraud, if you are told for 5 years that somebody has manipulated the market, if you are told for 5 years that somebody has unjustly enriched themselves at the detriment of consumers, and then all of a sudden at the very last part you get—you then have to sit where only 1 party has had access to you, where only 1 party knows what you are thinking, where only 1 party has had a free exchange, that is a problem. It—may I give you an analogy?

Mr. GRIFFITH. Sure, because I agree with you completely.

Mr. SCHERMAN. May I have 1 minute to give an analogy, Mr. Chairman?

Mr. WHITFIELD. You have 30 seconds.

Mr. SCHERMAN. OK. Suppose there is an FBI agent who investigates a case for a number of years. That agent is also a lawyer, as many of them are. That FBI agent then decides I am going to go be a lawyer and goes clerking for a Federal judge. And suppose that same lawyer that—who is now a clerk ends up—the judge that

he is working for ends up being the person who hears the case that he was investigating, and he gives him advice for a couple of years about what the cases he is investigating. And then he supposes after a couple of years of clerking, he wants to go be a prosecutor. So he is assigned as a prosecutor, and lo and behold, he gets the case that he investigated, and then he advised the judge on how to decide the case, and then he is the prosecutor.

Mr. GRIFFITH. Well, I think—

Mr. SCHERMAN. That is the FERC process.

Mr. GRIFFITH. And I think any time you have an attorney-client privilege with somebody, they ought to be disqualified. It creates interference.

Mr. WHITFIELD. OK. Recognize at this time Mr. McNerney for 5—7 minutes.

Mr. MCNERNEY. Seven second? Thank you, Mr. Chairman. Mr. Chairman, I just want to let you know I appreciate your devotion to fair play because that is what makes America great.

Where I am coming from is a point of skittishness after being manipulated in California, having Enron take \$9 billion and leaving us with a lot of problems.

So what I ask is, Do you feel it makes sense for us to try and persuade FERC to improve their behavior, or do you think it makes sense for us to enact new legislation to force the issue?

Mr. SCHERMAN. I would certainly prefer the latter, but if there is some way to do the former, that would be great, but there is no evidence to suggest that would work.

And let me just say about Enron. I understand the California energy crisis is still a hangover, if you will, over how we all think about this. What caused the California energy crisis, which harmed consumers, no doubt, was a myriad of factors. One of the most important one is what this committee is trying to do in other parts of the bill, which is to get efficient market design. One of the key problems in California was that it was an inefficient market. The market design was badly flawed. One of the key ways to prevent those kind of crises from recurring again is to make sure the RTO markets, the California ISO, is operating in an efficient way. That is an important reform that, along with the ex partes, would ensure that those kinds of problems don't happen again.

Mr. MCNERNEY. Well, I have heard this morning that—from Mr. Shelk, about the importance of a properly regulated market, and we heard it from Southern Company last week as well, the importance of proper regulation. So is that what you are talking about is regulation, or are you talking about a free market where anything goes?

Mr. SCHERMAN. There is no such thing as a free market where anything goes.

Mr. MCNERNEY. Clearly.

Mr. SCHERMAN. These markets are heavily regulated. What we are trying to do is to get the market rules to simulate competitive outcomes because many of us believe competitive outcomes are in the best solution of the consumer. But the FERC and the State commissions have to always understand—have to always be vigilant to make sure that the markets are properly regulated. But you

can regulate in a way that is designed to produce and simulate competitive outcomes, and that is what I advocate.

Mr. MCNERNEY. So do you think that this legislation gets us in that direction, or—

Mr. SCHERMAN. I think it is a very important step, yes, sir, I do.

Mr. MCNERNEY. OK. Mr. Weisgall?

Mr. WEISGALL. Well, let me take a crack at that from—give you a concrete example. In Idaho, a developer came to our utility on a competitive solicitation process, with a 150 megawatt wind project. They didn't win. Next couple of years, they disaggregated the project into several below-80-megawatt projects and turned it into a PURPA project, where our utility had no choice but to buy that power at an above-market price. There was a competitive process. They lost, so they used the hammer of PURPA's mandatory purchase obligation. What your—one aspect of your discussion draft is designed to enhance that competitive process, and in that case where there would be an open competitive process, that kind of result would not happen. Now, that is not necessarily Enron-like, but that, to go to the chairman's earlier question, is sticking our customers with higher costs, because the project had originally been rejected so it was simply disaggregated into smaller ones to make sure that it could fit into a PURPA mandate.

Mr. MCNERNEY. Well, I am sure there are plenty of examples like that—

Mr. WEISGALL. Yes.

Mr. MCNERNEY [continuing]. To go around.

Ms. Kelly?

Ms. KELLY. Thank you very much for recognizing me. I feel that since FERC is not on this panel, perhaps somebody needs to speak up for the interests of the other side. I would just note that what they are trying to do is protect consumers in these electric markets. And if you look at the orders that have come out, if you look at the entities who are being chastised, you look at the behavior in which they engaged, I think there—a case could be made that it is really important to have a strong enforcement at the FERC because consumers are otherwise going to be taken to the cleaners. The part we worry about is how much else is going on that has not been caught, especially in these centralized markets with their very complex rules.

We feel like it would, frankly, be more useful to get the Commission, or for this Congress themselves, to take a more holistic look at whether these markets are being systematically manipulated, and whether these are just kind of the icebergs that show above the surface. We are quite concerned about the operation of financial players in these markets. We have been for some time. Thank you.

Mr. MCNERNEY. Well, I mean that kind of makes the point. It is—we need a strong regulatory arm, but it needs to be fair. So what my concern is that this Section 212 goes a little too far in neutering the FERC's investigatory ability.

Mr. SCHERMAN. I don't think it neuters it at all. I mean it simply levels the playing field to provide constitutional due process. And it is easy to say don't do this when your members are not subject to the very regulations that are violating due process. Ms. Kelly's

members are not subject to these rules, they are not subject to this enforcement process.

Mr. MCNERNEY. Thank you, Mr. Chairman.

Ms. KELLY. Not true.

Mr. SCHERMAN. Well, it is true, Sue. Other than NERC, what are you subject to?

Ms. KELLY. I—there actually was one enforcement proceeding against one of my members in ISO New England.

Mr. SCHERMAN. One?

Ms. KELLY. Yes.

Mr. SCHERMAN. OK. Well, sorry, one.

Ms. KELLY. Generally speaking, we don't engage in behavior that would require that.

Mr. SCHERMAN. OK. Of course not. I am sorry.

Mr. MCNERNEY. Mr. Shelk, what do you see as some of the dominant trends—you said you see profound changes, what are some of the dominant trends, and how would this legislation harm or enhance those trends?

Mr. SHELK. Well, we are all confronting a number of things, regardless of business model, whether it is Ms. Kelly's members in public power, ours in merchant generation, and others at the table, everybody is up against what has been unhitching, if you will, of demand from economic growth, which is generally a good thing, so we don't need as much electricity as we used to, but—so it is flat demand at a time when most revenues are volumetric, is an issue. We obviously have a changing fuel mix, legislative requirements in California and elsewhere for renewables, all the environmental regulations, the technology. So it is safe to say while we are sitting here in 2015, in 5 or 10 years from now, it is going to be a dramatically different electricity system. It is just hard to predict exactly how different it is going to be. If grid storage comes on and the way it might, if different technologies come about, it is going to be very, very different. So that is why we have to be careful. I think what the draft tries to do, instead of being prescriptive and writing in the statute for all time, like happened in '78 and other times, things that would be hard to change later, you are giving general direction to the Commission on a range of issues. Like Ms. Kelly, some we like, some we don't. Our list might be a little bit different, but I think the intent of it is very, very good, which is to set out the goals, set out what you want to have the ultimate result be, and then let the experts at the Commission work through this on a bipartisan basis. So I think it would be overall helpful—

Mr. MCNERNEY. Um-hum.

Mr. SHELK [continuing]. To deal with the change you asked about.

Mr. MCNERNEY. Thank you.

Mr. WHITFIELD. Gentleman's time has expired.

At this time, recognize the gentleman from Illinois, Mr. Shimkus, for 7 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman. It is great to have you—this is a great hearing, and I love the back-and-forth and the trying to address it, but it is hard to argue against legitimate due process and equity and fairness, regardless of the players. I mean—so I—Morgan is great to have on the committee because he has a

good legal mind. And sometimes we back lawyers. They are good to have around when you need them, and when you have smart ones, they are great to listen to. So—and I missed his performance yesterday, so I guess I got the tail end of it in this one.

I am going to get back to a simpler aspect. I talked about it before the hearing to some of you. So I put up—what I—got a—that is why I took a picture of it while it was—and we got it up there, and you can't see it but this is—I am in the MISO area, so—and this happened—I found out this has happened a couple of times after we have done some due diligence, and so it is the auction clearing price debate. We have just had an auction. We have a lot of zones in the MISO region. Most of the zones cleared at \$3.40—well, there is \$3.29, \$3.48, in that range, except for one zone which happens to be Illinois, that is why I know about it, and it cleared at \$150; a 300 percent increase. And in doing due diligence and visiting with FERC—this has happened before, I think it happened in the Cleveland area a couple of years ago. So I have a couple of questions. Obviously, I am trying to understand this. I mean it is a 300 percent increase. That is—that gets your attention. It has got the attention of my individual consumers, it has got the attention of the business interests, the manufacturers who are going to be using power. And so the first question is—and MISO decided to have—do an annual auction versus some regions do 3 years. And I want to ask Ms. Kelly and Mr. Shelk first, do you think that one model is better than the other? MISO—in essence, MISO bet that they would have better auction results by doing it yearly. And, at least in my region, they really got bit this time somehow. So can you, you know, kind of understand how I laid out the question?

Ms. KELLY. Yes, I think I can. It requires me to go a little bit in the weeds though, so I apologize in advance. This particular market in MISO was what is known as a residual market, in other words, you do not have to obtain your capacity from that market, as you do in the eastern RTOs. As a result, the time horizon is shorter; it is just a year ahead.

Mr. SHIMKUS. But that is a MISO decision though.

Ms. KELLY. Yes.

Mr. SHIMKUS. I mean they could have gone—they could have a 3-year—

Ms. KELLY. They could, but—

Mr. SHIMKUS. OK.

Ms. KELLY [continuing]. Because most capacity is procured outside that market, it makes less sense to go out in a longer term than it would in a mandatory market, as in the east.

The other thing to note here is one of the reasons that that result happened is because of the size of the zone that the price was formed in. What happened was Dynegy bought a lot of assets in that region the year before, and as a result, I think they controlled over 60 percent of the generation in that zone. At one point, MISO had talked about lumping 2 zones together to mitigate that and make them less of a, you know, generation—what we call a pivotal supplier in that zone. That was discussed in the stakeholder process, but in the end that did not happen. One of the complaints that I have read about this alleges that one—a Dynegy employee was actually vice chair of the relevant committee in the stakeholder

process that made, you know, that made that recommendation. And this gets to the point I made in my testimony about threatening to leave because the generation in the southern part of Illinois, Dynegy has in the past made noises that they might take that over to PJM. So that is one of—I think one of the reasons why that is what this complaint alleges, let me just say, that that is one of the reasons why that change was not made and they were left as the dominant supplier in the zone. And sure enough, the next auction, the price spiked.

So, you know, that is one of the things that gives us as consumers very strong concerns about how these market rules are set, how the zones are set, and how arbitrary and, you know, volatile the prices can be from auction to auction.

Mr. SHIMKUS. John?

Mr. SHELK. The question you asked is a good one about the market design. We have generally favored the multiyear approach in PJM and New England, and the reason is simply that you then get the forward price signal much earlier. So I think the Cleveland example you gave is a very good one. When the price went up in that—what is called the ATSI zone in the Cleveland area a few years ago, then the next auction, many, many developers came in, in fact, you are seeing development around there not only because the price went up for that one year, but because of the Utica shale gas. So there is a gas basis differential, and these new gas plants can go in there.

In terms of the conduct of this auction, I think it is important to point out that MISO does this rigorously in terms of overseeing the auction. There is an independent market monitor. The rules are strict about what can and can't be offered. Ms. Kelly mentioned Dynegy. They offered all the megawatts in that they have. And as you know, what separates Illinois from the rest of MISO from southern Illinois is the competitive generators there are only dependent on the revenue from that auction in the energy market. The other point—the other States, as Ms. Kelly indicated, are outside of it. So if you actually look at the southern Illinois price compared to the northern Illinois price, they are about the same, because that is the only source of revenue to signal new investment. And I would imagine if we had this conversation a year from now, particularly if MISO has a longer lead time, you will see people come on to invest in southern Illinois as they did in Cleveland, and they are doing in New England, when the price went up in New England last—

Mr. SHIMKUS. Well, that is what we hope, and that is kind of the expectation of people who are saying that—market signal and people are moving, and obviously people—short-term there will be some harm.

I guess the other concern I have, and there—I have so much issues that I could talk about, but—is that—and which I am not going to, so, Chairman, don't worry about it, is that there is a different world now environmentally, and generation-wise and—than that—than the Cleveland example. So bringing on and planning, your only large megawatt is going to be natural gas. You can't—how do you bring—you can't bring it on. The environmental regs are too stringent for us to bring on new southern Illinois coal gen-

eration. And then I—on the—and the other thing is I am really having this debate about re-regulated markets, just because I am not sure with this environmental pressure that we can keep major base load generation alive in a lot of parts of our country.

Mr. SHELK. Well, just a brief comment. If you look to the east from Illinois, you have a good example of what if go completely back to the old model, what the risk is there, because there you have a plant in southern Illinois where the consumers are being paid—stuck for billions of dollars over the multiyear life of the project. And I just read yesterday it is operating at a 10 percent capacity factor—

Mr. SHIMKUS. Yes. Yes.

Mr. SHELK [continuing]. Yet consumers are going to pay for that. Same thing happened in Ms. Castor's State in Florida, the nuclear plant closed down. They are now going to be stuck with the costs of the closure of the nuclear plants. So there is always that balance between—

Mr. SHIMKUS. Um-hum.

Mr. SHELK [continuing]. Who is going to bear what risk, and how do you compensate them, and—

Mr. SHIMKUS. Yes.

Mr. SHELK [continuing]. You are right, it is a conversation we are going to have to continue to have.

Mr. WHITFIELD. I understand in about 5 minutes or so we are going to have a series of like 11 or 12 votes on the floor, so I am going to recognize Mr. Pallone for 5 minutes. And we are going to go as fast as we can.

Mr. PALLONE. I will try to be—to use less of that if I can. I just have one question for Braith Kelly. In nearly all the testimony today, I see a few common themes. First, that there are problems with the electricity markets. Clearly, there is a disagreement as to what the problems are and what the solutions should be. Second, there is a disconnect between the State and Federal rules on electricity, even taking into account the general concept that wholesale markets are regulated by FERC and retailed by the States. There is a blurring of those lines that needs resolution, and the States are still responsible for guaranteeing service to their residents, and also for implementing a number of State and Federal environmental policies that are affected by these wholesale markets. And I am not here to take sides on how we resolve this, but clearly, we are in a transitional phase, and I am concerned that many of these unresolved issues could have a negative effect on consumers, public health, and the environment. For instance, I know the courts have ruled against New Jersey and Maryland in their efforts to ensure reliability through bilateral contracts, and that leaves us with a problem with regard to the responsibility of States.

So, Mr. Kelly, I know your company is dealing with the result of this lack of clarity, so could you describe how the current situation affects project developers and States, particularly with regard to my home State?

Mr. KELLY. It was one of the examples I used earlier. The cost of capital on that project is almost 30 percent higher. That all has to come from somewhere. It puts us in a position where we were under contract for that project, it was a much lower cost, we had

what was called a CFD, a contract for differences. We bit in a competitive process with over a dozen other developers for a contract. That competitive process resulted in three projects being selected. Those three projects went forward, and had to go through what was the—screen to determine if they were economic. Two projects passed through, one did not, proving that the system worked. That project was not economic, it was not allowed to participate. Unfortunately, there is a great deal of confusion as to where the State's right to—under the Federal Power Act, to manage their generation collides with the—with FERC and its authority. The rules are very, very clear. The rules were created about these contracts. There was very little doubt in our mind that we would get through that process. Unfortunately, some—you know, there was litigation, findings by two courts, that these, what were called subsidies were not constitutional. That is going to have far-reaching implications. There are some cities being considered in Illinois in—for the nuclear fleet there. There are some cities being considered in Ohio to keep First Energy and AEP's fleet. These are all subsidies, but these are the States making the judgment. Whether or not there is a—you know, that collision—where those courts—I mean it is going to be very, very difficult for the States to implement the Clean Power Plan without this tool, without the ability to support generation.

Mr. PALLONE. All right.

Mr. SHELK. Mr. Pallone, if I could just provide the—to balance out the point of view. I think it is important to point out that this happened in New Jersey, as you know, and in Maryland, and the proof in the difference in the models is in the numbers from the results. The developers said they needed these contracts or the projects would not go forward. The process Mr. Kelly described occurred in your State. The prices that would have been locked in for 15 and 20 years were north of 50 to 75 percent higher than the market clearing price for that same generation. They said they would not go forward without this contract for differences, yet when the courts struck it down, they went ahead and did it anyway. And Mr. Kelly refers to the lower cost of capital, well, that is because there is a different risk-reward calculation. The reason why their capital costs would be lower, and I question whether they would pass that on or not, is because everybody in New Jersey, all of your ratepayers under that program, would have been stuck paying for those plans at those inflated costs for 20 years, when I turned out not only were there—was there other generation available at less cost, the very same plants that said they needed the subsidy in Maryland and New Jersey went ahead without it. And the last point is it was eight Federal judges, two district courts and six Courts of Appeal, unanimously found, importantly, in the narrow context of these programs, not all subsidies, not renewable portfolio standards, but the narrow context of these contracts for differences, eight Federal judges said it was unconstitutional and preempted by the Federal Power Act.

Mr. PALLONE. All right, thank you.

Mr. WHITFIELD. At this time, recognize the gentleman—where did he go? Is he gone?

VOICE. Yes.

Mr. WHITFIELD. OK. I recognize Mr. Tonko from New York for 5 minutes.

Mr. TONKO. Thank you, Mr. Chair.

Mr. Kelly, you have pointed out several potential problems with the language in the discussion draft amending the Federal Power Act. You also noted the need to update and modernize our grid system. As you know, there are many changes occurring in the electricity sector. In your view, does FERC have adequate tools to manage that grid evolution and modernization?

Mr. KELLY. They do. They—my opinion is they need to utilize those tools and undertake to move forward. I think they need to empower the States to move forward, and make it clear what the States can and cannot do, and then stand by that rather than, throughout the process that we dealt with that we were told FERC has spoken by virtue of its silence—

Mr. TONKO. Um-hum.

Mr. KELLY [continuing]. Which is approval of what was going on in New Jersey and Maryland, and then ultimately there was a complete reversal when we got to the courts and their opinion. We need clarity. When you make investments that are above \$1 billion in infrastructure that is critical to reliability, the constantly changing rules throughout. We started with—our projects and then our fee with a State reliability exemption. That was taken away from FERC. The States have the authority to do it. It was turned into a MOPR, minimum offer price rule, one, then MOPR two, to create more barriers for the State—from the States doing what they are—have traditionally been empowered to do.

Mr. TONKO. So are there other changes beyond that that the Federal Power Act should consider that would better facilitate FERC's and the States' management of the changes in this sector?

Mr. KELLY. I think what we are seeing here is some of the States' current authority being, you know, transitioned or given to FERC. It is concerning, but if that is the decision, if that is the direction that we need to go then that—at least it is a decision—

Mr. TONKO. Um-hum.

Mr. KELLY [continuing]. And I think FERC lacked the authority that—or the jurisdiction, let me say, that resulted in our cases.

Mr. TONKO. I get the sense that Ms. Kelly wants to comment. We have hosted her in our district, so it is good to see you.

Ms. KELLY. Thank you so much. I would just simply add to that that we as public power utilities are also concerned about the ability to comply with the Clean Power Plan and to make the changes to our portfolios that we think we may be required to do in some States because of these Federal market rules. We share some of the concerns of CPV, and we actually are involved in the Supreme Court case regarding New Jersey and Maryland. Thank you.

Mr. TONKO. Mr. Cook—thank you. And, Mr. Cook, would you have any comments in regard to the modernization or evolution of the grid and FERC?

Mr. COOK. Well, certainly, the promotion of advanced technologies and the encouragement that you have in the draft discussion to direct FERC to consider and identify how advanced technologies might support the grid I think is good direction to FERC. In addition, I think one of the things FERC needs to look at, par-

ticularly for companies like ours who would like to expand out of one ISO and into another, and we offer a standardized product for consumers that can be utilized in grids, and that the markets are similar in other ISOs. I mean as we transition from PJM to New York and New England, or the mid-continent ISO, the rules for the kinds of services we provide can be vastly different, and that means in some cases we can't participate in the market, or in some cases we have to redesign our technology in order to participate in those different markets.

I know there is a lot of discussion about how utility grids are different, but in most cases, I think you could buy a toaster, it works anywhere within the U.S. The grid is surprisingly identical across our country.

Mr. TONKO. You know, you talk about this technology, and obviously storage is part of the enhancement that would enable us to have a stronger outcome. So do you see—do you anticipate that other States or markets will follow suit with some of the policies that we have seen that have advanced technology and expansion of distributed generation?

Mr. COOK. Yes, absolutely, and I think and I hope that other jurisdictions will follow the kinds of things PJM has done to encourage customer-sided storage facilities to be able to participate in their markets and provide valuable grid services. I think storage has huge opportunities for growth, huge opportunities for cost declines, and when combined—and I think one of the key components is combined to find the different resources and values that storage can provide. So a customer that is utilizing their storage for back-up power, so they have power when the grid goes down, shouldn't be prohibited from also utilizing that facility to provide valuable grid services when there is no technological or other prohibition on that. There shouldn't be regulatory barriers that prohibit that kind of participation.

Mr. TONKO. OK. Well, I thank you, Mr. Chair.

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

Ms. CASTOR. Thank you. I am going to follow up on that because I think the innovative cost saving development of storage capacity, as you said, has a very bright future, and I want America to be the leader in the world in the development of that technology. So I was concerned that you testified that changes to PURPA in the discussion draft would harm—complicate the future economic growth of this technology and be a significant barrier to entry in a State or region without a well-functioning market, or at least some competition. And many States, including my home State of Florida isn't—doesn't have a competitive regional wholesale market, and small power producers don't have access. So would you provide us with additional—is it as easy as striking this language, does it need to be changed, could you go over what your specific recommendation is here?

Mr. COOK. And thank you. In my opinion, I don't think the language is needed. I think you could strike it in its entirety. I don't see a dysfunction in FERC Order 688 which separates and says if there is an open market, large generators are assumed to have ac-

cess—nondiscriminatory access to that market and, therefore, don't need any of the PURPA protections.

Ms. CASTOR. And then if the language is included, do you agree that it would harm the economic vitality of this emerging—

Mr. COOK. The—

Ms. CASTOR [continuing]. Technology?

Mr. COOK. Yes, absolutely, because it changes the presumption which is, on the other side, to say big stuff has open access and can utilize its wherewithal in those markets. Small stuff does not.

Ms. CASTOR. Um-hum.

Mr. COOK. And what the language would do is say small stuff does. And I think it is a factual matter in having dealt with development of solar projects for over a dozen years, many of which were in the 50 kilowatt to 200 kilowatt range, there are a myriad of barriers that we face and, you know, the simple contracting mechanism that is simple for utilities, not simple when you are dealing with a commercial customer that is not used this kind of arcane language. So the PURPA protections for the smaller generation I think needs to continue, but it is not absolute. As FERC balanced in its order, it said it is a rebuttable presumption. So if, indeed, you do have a big system that is serving a small municipal system, perhaps they do have open access and can go directly into the market, and that can be presented to FERC as a rebuttable presumption.

Ms. CASTOR. OK.

Mr. COOK. So I think that is the proper balance.

Ms. CASTOR. Thank you very much.

Mr. SHELK, I think you gave the committee some wise advice. You said don't pass a law that will be outdated in the next few years. The energy market is changing and there are new requirements, and it appears that the old traditional electric utility model does not match the challenges of the modern world. And there has been so much resistance from some utilities, and they have a mission to provide the best return for their shareholders, but—and that is largely based on kilowatt hour use. What can we do in this discussion draft to begin to provide greater incentives to electric utilities to invest in greater efficiency and renewables, with the understanding we have to maintain the grid?

Mr. SHELK. A lot of it is, frankly, outside of what a legal instrument like a statute could do, because what is happening in every State, you know, until recently you had—and we still do have these different business models, and we have been clear as an organization we have got all—like I said, 95 percent of our member assets in the RTOs. So in regions like yours that don't have open markets, frankly, that is not where an independent power producer can or would go. But what is really changing for all of us, because the common denominator of just about everybody I think on the panel, except for Mr. Cook, is we are all on the central station power plant business, as we have been since the advent of electricity for the most part. And what is happening now is the technology is there to empower consumers—

Ms. CASTOR. Um-hum.

Mr. SHELK [continuing]. Regardless of the laws of the State. So you have, as you know in Florida and elsewhere, initiatives on all

these different distributed resources, energy storage, energy management, and so it is really the technology that is driving it, less than the legal side.

The challenge, however, is unlike just about anything else I can think of, you know, we don't deliver electricity to this room or our homes in separately packaged units. And as someone said earlier, it is all part of this interconnected machine, essentially, and the challenge now is as these distributed resources and storage come about, the whole thing has to work together. And we have this Federal-State jurisdictional divide, and while we might disagree on how to resolve it, I think that is one of the things that is going to have to happen, because the Federal Government will continue to have a role through FERC, you all have a role, of course, the States do, but I don't—can't imagine any one particular law. Really, technology, as often is the case, is ahead of the law, but to the extent you can encourage more competition, I think then we are going to get the innovation and put the risk of the innovation on those who are bringing it to market, rather than on your consumers.

Ms. CASTOR. Thank you very much.

Mr. WHITFIELD. Mr. Weisgall, you tried to get attention.

Mr. WEISGALL. Ten seconds. Just to clarify from your earlier questions, Congresswoman: Number one, the PURPA proposals that we have would specifically not apply to States that lacked competitive markets—would, therefore, not apply to Florida; number two, I am not aware of any energy storage QF. Clearly, energy storage is the Holy Grail for renewable energy, we all know that, and certainly anything we would propose, especially as a company that has put billions into wind and solar, this is something we want to encourage. So the last thing we would want to do would be to discourage energy storage through any PURPA amendments. But it is kind of apples and oranges. As Mr. Cook himself said, energy storage is not really a generation asset, and we are really looking at generation assets. I just wanted to clarify those two points.

Mr. WHITFIELD. Well, thank you very much. And I want to thank the panel of witnesses, and we will need to get together again soon to continue our discussion, but we do look forward to working with all of you, and we are going to need your advice and counsel as we move forward trying to develop a piece of legislation.

And with that, we will keep the record open for 10 days. And thank you very much, and see you soon.

And with that, we will adjourn the hearing.

[Whereupon, at 11:45 a.m., the subcommittee was adjourned.]

