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LEGISLATION ADDRESSING LNG EXPORTS

AND PURPA MODERNIZATION

FRIDAY, JANUARY 19, 2018

House of Representatives,

Subcommittee on Energy,

Committee on Energy and Commerce,

Washington, D.C.

The subcommittee met, pursuant to call, at 9:15 a.m., in Room 2322, Rayburn House Office Building, Hon. Fred Upton [chairman of the subcommittee] presiding.

Present: Representatives Upton, Olson, Barton, Shimkus, Latta, McKinley, Griffith, Johnson, Long, Bucshon, Flores, Mullin, Hudson, Cramer, Walberg, Duncan, Walden (ex officio), Rush, McNerney, Peters, Green, Tonko, Loeb sack, Schrader, Kennedy, Pallone (ex officio).

Staff Present: Ray Baum, Staff Director; Allie Bury, Legislative Clerk, Energy/Environment; Wyatt Ellertson, Professional

Staff, Energy/Environment; Margaret Tucker Fogarty, Staff Assistant; Adam Fromm, Director of Outreach and Coalitions; Jordan Haverly, Policy Coordinator, Environment; A.T. Johnson, Senior Policy Advisor, Energy; Ben Lieberman, Senior Counsel, Energy; Mary Martin, Chief Counsel, Energy/Environment; Katie McKeogh, Press Assistant; Brandon Mooney, Deputy Chief Counsel, Energy; Mark Ratner, Policy Coordinator; Annelise Rickert, Counsel, Energy; Dan Schneider, Press Secretary; Jason Stanek, Senior Counsel, Energy; Madeline Vey, Policy Coordinator, Digital Commerce and Consumer Protection; Hamlin Wade, Special Advisor, External Affairs; Andy Zach, Senior Professional Staff Member, Environment; Priscilla Barbour, Minority Energy Fellow; Evan Gilbert, Minority Press Assistant; Caitlin Haberman, Minority Professional Staff Member; Rick Kessler, Minority Senior Advisor and Staff Director, Energy and Environment; John Marshall, Minority Policy Coordinator; Alexander Ratner, Minority Policy Analyst; Tim Robinson, Minority Chief Counsel; and Tuley Wright, Minority Energy and Environment Policy Advisor.

Mr. Upton. Good morning.

Today's legislative hearing is going to focus on three bills: two bipartisan bills addressing LNG exports introduced by Mr. Johnson and a bill introduced by Mr. Walberg to modernize the Public Utility Regulatory Policies Act of 1978, also called PURPA.

I want to thank our witnesses for appearing before us today to give their views so that we could work to perfect these bills.

On the first panel, we are going to hear testimony from the Department of Energy on two LNG bills, H.R. 4605, the Unlocking Our Domestic LNG Potential Act, and H.R. 4606, the Ensuring Small Scale LNG Certainty and Access Act. And we will also receive testimony from FERC on H.R. 4476, the PURPA Modernization Act.

We also have a second panel of witnesses today so we can hear from industry and State regulators to better understand the impact of the legislation.

As we consider this legislation, I am reflecting on our bipartisan code1 to Puerto Rico and the Virgin Islands last month. It is hard to put into words the devastation and loss, and it is hard to fathom that it has been more than 100 days since the hurricane struck and yet hundreds of thousands of folks are still without power.

As we learned on our trip, Puerto Rico's grid was in a very rough shape to begin with, and many of their power plants were so outdated they were still burning petroleum. I believe there is a real potential for Puerto Rico to expand their use of natural gas in these bills, especially the Small Scale LNG bill can be part of that solution.

So I think I speak for all those who joined with me on the code when I say that we are going to continue to stay focused to ensure that the territories and the people receive the assistance that they deservedly need.

With that, I would like to thank this panel of distinguished witnesses for appearing today. I look forward to your testimony.

And I was going to yield to Mr. Walberg for a minute or so.

Mr. Walberg.

[The prepared statement of Mr. Upton follows:]

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Mr. Walberg. Mr. Chairman, thank you for holding this hearing today. I want to also thank your staff for being a part of this process. They have been terrific to work with.

I would like to quickly point out that this legislation that aims to bring a 40-year-old law into the 21st century is an important aspect to deal with. It is time that my constituents see the advancements made in the electricity sector reflected in their utility bill.

H.R. 4476 aims to lower electricity bills for American families, to stop the gaming of a Federal law at the expense of my constituents.

I am willing to work with all interested stakeholders moving forward to make changes to this legislation to ensure we bring real benefits to hardworking Michiganders and others all around the United States.

I look forward to this hearing and yield back my time.

[The prepared statement of Mr. Walberg follows:]

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Mr. Upton. The gentleman yields back.

I yield now to the ranking member of the Energy Subcommittee, Mr. Rush, for an opening statement.

Mr. Rush. I want to thank you, Mr. Chairman.

Today we will be examining legislation addressing LNG exports and PURPA modernization. I must say, Mr. Chairman, and announce I do have concerns with all three bills that are before us today. It is my hope that the majority will work with our side to address each of these issues as we move through the committee process.

To begin with, Mr. Chairman, H.R. 4476 would make sweeping changes to PURPA -- changes, Mr. Chairman, that will fundamentally alter both its objective and its effectiveness. For the past 40 years, this policy has helped to promote wholesale distribution of electric energy while increasing energy efficiency and ensuring that energy consumers receive fair retail rates.

PURPA's effectiveness, Mr. Chairman, has come from its unique role in facilitating competition in the electricity sector, and I am concerned that some of the proposed changes under H.R. 4476 will hamper the law's ability to achieve its original objective.

Specifically, section 4 of H.R. 4476 would essentially strip away PURPA's requirement that utilities must purchase from certain qualified renewable energy projects, small power production, and cogeneration facilities.

As you know, Mr. Chairman, under current law, there is already an exemption from must-buy provision if FERC determines that a

qualifying facility has nondiscriminatory access to specific marked-related conditions.

However, H.R. 4476 would give certain utilities the ability to refuse to purchase energy from small power producers or provide services to a QF if that utility determines that it has no need to purchase such power or the utility secures long-term generation resources through a competitive process and uses integrated resource planning, or IRPs.

Mr. Chairman, H.R. 4476 provides little to no insight for nonregulated electric utilities or for those operating in States that do not require IRPs. My concern is that the changes in H.R. 4476 would replace a system that currently works well in ensuring a competitive environment for smaller, privately owned energy producers with one that severely reduces competition.

Mr. Chairman, if it ain't broke, it don't need a fix.

Additionally, I also have concerns regarding both H.R. 4605 and H.R. 4606, both of which address the exportation of LNG, and neither of which is really, in the final analysis, necessary.

While H.R. 4506 appears to be some sort of a sweetheart deal, my issues with H.R. 4605 surround its elimination of the section prohibiting the import or export of natural gas without prior DOE approval, while also removing longstanding consumer protections.

So, Mr. Chairman, I look forward to today's hearing, and I look forward to concentrating a very robust discussion around these important issues.

And with that, I yield back the balance of my time.

[The prepared statement of Mr. Rush follows:]

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Mr. Upton. The gentleman yields back.

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

The Chairman. I thank the gentleman from Michigan. I welcome our witnesses.

Today the committee will examine legislation to will encourage and streamline the process for approving liquefied natural gas exports and modernize the Public Utility Regulatory Policies Act of 1978, also known as PURPA. For some of us, 1978 doesn't seem that far back. For others, it may seem like ancient history.

Under my chairmanship, I have encouraged our members to put consumers first and focus on ways to grow our economy. To do this effectively, we need to look to see where we can update our laws and regulatory policies for the 21st century.

I want to thank Mr. Johnson and Mr. Walberg for their hard work on these bipartisan bills. I would also like to thank the witnesses for appearing before us today and providing their views on these two important pieces of legislation.

You know, the United States is the world's number one producer of oil and gas and our reserves are so large they are predicted to meet domestic demand for a century or more. Who would that thought? Up until the shale revolution, our supplies were dwindling. We were importing natural gas. As you would expect, our laws reflected that reality.

However, we are in a completely different situation today, and

for the first time ever we are net exporters of natural gas. Now, to capitalize on this incredible opportunity, we need to update our laws to remove unnecessary barriers to innovation and growth.

As dozens of studies have shown, including those sponsored by the Department of Energy, LNG exports provide wide-ranging net benefits to consumers and the economy.

Mr. Johnson's legislation would remove unnecessary restrictions on these exports which date back to the 1930s. These changes would help create more open, transparent, and competitive markets for natural gas, encourage more production in the U.S., create thousands of jobs, and spur further economic development, all good things for America.

It should not be overlooked that LNG exports also strengthen our diplomatic hand when dealing with countries like Russia that like to use their energy resources as weapons. Encouraging the use of clean-burning natural gas around the world also helps to reduce greenhouse gas emissions and improve the environment. Exports are truly a win-win for all sides in America.

Today we are also examining legislation to modernize PURPA. This is a law that was enacted to encourage the use of domestic energy in response to the Arab oil embargo.

Since PURPA's passage, the Nation's power sector has undergone remarkable changes in the ways that electricity is supplied to consumers. So Mr. Walberg's legislation recognizes these changes and updates a 40-year-old law to ensure that it serves the interests of consumers and power suppliers for years to come.

Now, most notably, the PURPA modernization bill will address the concern that certain facility developers are successfully evading the intent of FERC's One-Mile Rule. At last year's oversight hearing on PURPA, we heard examples of project developers building power-producing facilities just far enough from each other so they could avoid PURPA's 80-megawatt threshold, thus allowing them to receive the benefits that are intended for small power producers.

H.R. 4476 offers a specific fix to address this concern, and I will be interested to hear FERC's thoughts on this issue today.

As I have said before, the Energy and Commerce Committee strives to focus on the needs and interests of American consumers. We are putting them first.

With that, I look forward to our witnesses' testimony and discussion among the committee members on the proposals to revise the LNG policies and to modernize PURPA for the 21st century.

With that, Mr. Chairman, I am delighted you are chairing this hearing. I look forward to the testimony as we move this legislation forward. And I yield back the balance of my time.

[The prepared statement of The Chairman follows:]

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Mr. Upton. The gentleman yields back.

The chair would recognize the ranking member of the full committee, Mr. Pallone, for an opening statement,

Mr. Pallone. Thank you, Mr. Chairman.

Today we will be examining legislation addressing natural gas exports and changes to the Public Utility Regulatory Policies Act, or PURPA.

While I am pleased we are taking the time to examine these bills, I fail to see the need for almost any of the policy changes that they propose.

First, we have H.R. 4605, the Unlocking Our Domestic LNG Potential Act. The bill does away with the Natural Gas Act's prohibition on the import or export of natural gas without prior approval from the Department of Energy. It removes longstanding consumer protections and prevents DOE from ensuring exports of liquefied natural gas to nonfree trade agreement countries are consistent with the public interest.

As a result, the public would not have an opportunity to know about or provide input on natural gas exports to any country at any level.

Furthermore, we must have a mechanism for the Federal Government to know the source and destination of gas imports and exports, something that is critical for our natural security.

DOE's process for reviewing and approving gas export applications is working efficiently and effectively, so I fail to see a reason to alter it, let alone do away with it completely as proposed by this bill.

I am particularly concerned that the unrestricted export policy included in this bill could significantly impact domestic natural gas prices and adversely affect American consumers and manufacturers.

Furthermore, unfettered exports could be even worse for climate change. The policy incentivizes widespread fossil fuel extraction with virtually no environmental protections, adds more fossil fuels to the electricity mix rather than replacing dirtier sources, and artificially props up the coal industry.

H.R. 4606 appears to be an attempt to codify the Trump administration's recently proposed rule to expedite the approval of small-scale natural gas exports, and that rule would deem certain lower volume exports to non-FTA countries in the public interest so long as DOE's approval of the application does not require an environmental review under the National Environmental Policy Act.

And I have concerns about this rule, but it is a model of restraint compared to this legislation, which would keep DOE's volume limit but completely jettison the requirement that applications qualify for a categorical exclusion from NEPA.

It speaks volumes that this bill has even fewer environmental safeguards than a Trump administration proposal. The bill also fails to prevent applicants from using this new process to evade the public interest determinations required for large-scale exports by segmenting a large volume gas export into a series of smaller proposals.

Mr. Chairman, perhaps even more troubling is that, according to the Congressional Research Service, only one project currently meets

the capacity requirements of the administration's small-scale LNG rule but does not qualify for a categorical exclusion, and that is a project in development by Eagle LNG Partners in Jacksonville, Florida.

Since the bill does not include a categorical exclusion provision, the Jacksonville facility would be the only project to benefit from this new expedited process. That sounds to me suspiciously like the kind of legislative earmark that I thought my Republican colleagues opposed. And I look forward to hearing my colleagues' views on that matter and why this bill is even necessary at all.

And finally there is H.R. 4476, the PURPA Modernization Act of 2017, which significantly alters section 210 of PURPA. This provision has long ensured beneficial competition for generating resources, save consumers money, and further the growth of renewables and cogeneration.

This committee, under the leadership of former Chairman Barton, struck the right balance when it significantly updated PURPA in the Energy Policy Act of 2005. In contrast, this bill lacks that balance, with two of the three main components of H.R. 4476 representing a direct assault on PURPA that would solidify the monopoly power of utilities in areas without competitive wholesale or retail markets.

And having that said, I am not completely opposed to updating PURPA. The part of Mr. Walberg's bill dealing with the so-called One-Mile Rule, which many claim has encouraged the segmentation of PURPA projects that would otherwise not qualify under the law, that merits attention. It is certainly a topic that we would be willing

to try to address in a bipartisan fashion. But overall, these bills really are not in the public interest.

So I thank you. And I yield back the balance of my time, Mr. Chairman.

[The prepared statement of Mr. Pallone follows:]

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Mr. Upton. The gentleman yields back.

We are now prepared to hear the testimony from our first panel. We are joined by, first, Steven Winberg, the assistant secretary for fossil energy from the Department of Energy, and then Mr. James Danly, general counsel from FERC.

So thank you. Your testimony is made part of the record. And we would like to give you 5 minutes now to summarize that, and then we will go into questions.

Mr. Winberg, welcome to the subcommittee.

**STATEMENTS OF STEVEN WINBERG, ASSISTANT SECRETARY FOR FOSSIL ENERGY,  
DEPARTMENT OF ENERGY; AND JAMES DANLY, GENERAL COUNSEL, FEDERAL ENERGY  
REGULATORY COMMISSION**

**STATEMENT OF STEVEN WINBERG**

Mr. Winberg. Chairman Upton, Ranking Member Rush, and members of the subcommittee, it is an honor to appear before you on behalf of the administration. I will provide technical comments on the two bills that pertain to the Department's authority under the Natural Gas Act to regulate natural gas exports.

DOE's authority to regulate the export of natural gas arises under section 3 of the Natural Gas Act. This authority is vested in the Secretary of Energy and has been delegated to the assistant secretary for fossil energy.

Section 3(a) of the Natural Gas Act sets forth the standard for revision of most LNG export applications. The Department interprets section 3(a) as creating a rebuttable presumption that a proposed export of natural gas is in the public interest.

Under this provision, DOE performs a thorough public interest analysis before acting on applications to export natural gas to nonfree-trade agreement countries.

In the Energy Policy Act of 1992, Congress introduced section 3(c) to the NGA which created a different standard for free

trade agreement countries that deems these applications to be consistent with the public interest and granted without modification or delay.

Since January 2017, DOE has granted authority to export natural gas to two world-scale LNG projects, Golden Pass Products in Texas and Delfin LNG, which is proposed for offshore Louisiana. DOE has also granted authority to export to Eagle LNG's small-scale Maxville, Florida, project as well as an additional capacity at the proposed Lake Charles LNG project.

In total, DOE has authorized 21.35 billion cubic feet per day of natural gas under section 3(a) for export to anywhere in the world not prohibited by U.S. law or policy.

This morning I will provide technical comments on both H.R. 4605, the Unlocking Our Domestic LNG Potential Act, and H.R. 4606, the Ensuring Small Scale LNG Certainty and Access Act.

H.R. 4605 would remove DOE's authority in regulating natural gas trade for the United States. Currently under the NGA, DOE has authority over imports and exports of natural gas. The Federal Energy Regulatory Commission has authority over the siting, construction, and operation of interstate natural gas pipelines and LNG terminals. The bill appears to make no modification to FERC's jurisdiction under the NGA.

Under current law, LNG export project sponsors submit applications to both FERC and DOE, and most projects require the completion of an environmental impact statement under the provisions

of the National Environmental Policy Act. In these cases, FERC is the lead agency in preparing the EIS and DOE is the cooperating agency. Separate from the FERC reviews, DOE conducts a public interest review under section 3(a) of the Natural Gas Act.

Regarding H.R. 4606, all exports of natural gas, regardless of quantity, are subject to review and approval by DOE through its regulatory authority under the Natural Gas Act. Regarding 4606, all exports of natural gas, regardless of quantity, are subject to review and approval by DOE under its regulatory authority under the Natural Gas Act.

H.R. 4606 would amend section 3(c) to expedite approval of imports and exports of small volumes of natural gas. The effect of this bill would be to have qualifying applications granted without modification or delay.

This bill appears to be similar to the volume criteria DOE laid out in its recent DOE notice of proposed rulemaking concerning small-scale natural gas exports, published on September 1 of 2017, which offered that natural gas export applications to nonfree-trade agreement countries that propose to export up to and including 0.14 billion cubic feet per day would be deemed to be consistent with the public interest.

So in conclusion, I note that the United States has become the world's largest combined producer of oil and natural gas, resulting in an abundance of reliable and affordable energy resources. In 2017, the United States was a net exporter of natural gas for the first time

on an annual basis since 1957. Overall, the Energy Information Administration forecasts net natural gas exports to average 2.3 billion cubic feet per day in 2018 and 4.6 billion cubic feet in 2019.

The Department appreciates the ongoing bipartisan efforts to address our Nation's energy challenges and looks forward to working with the committee on the legislation on today's agenda and on any future legislation.

Thank you for the opportunity to be here today, and I look forward to your questions.

[The prepared statement of Mr. Winberg follows:]

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Mr. Upton. Thank you.

Mr. Danly, welcome to the subcommittee.

#### STATEMENT OF JAMES DANLY

Mr. Danly. Mr. Chairman, Ranking Member Rush, members of the subcommittee, I appreciate the opportunity to come here and testify today. My name is James Danly, and I am the general counsel of the Federal Energy Regulatory Commission.

Before I begin with my opening remarks, I want to mention that I am appearing here today as a staff witness, and my opinions are not those of the Commission or of any individual commissioner.

I have been asked to testify about a bill that amends the Public Utility Regulatory Policy Act of 1978, PURPA. That bill, H.R. 4476, has three provisions in it, and I will discuss briefly the effect of each one in turn.

The first of the provisions, section 2, has to do with the so-called One-Mile Rule. PURPA defines small power production facilities as any power production facility which, when taken with the other facilities at the same site -- that determination is made by FERC -- is less than 80 megawatts. And it is worth pausing for a second to mention that the small power production facility is one of the two types of qualifying facilities under PURPA, the other being combined heat and power, cogeneration.

The regulations that were promulgated by FERC pursuant to PURPA

provide that generation facilities are considered to be at the same sight if they are within 1 mile of each other, if they share the same energy resource, and if they are owned by the same person or an affiliate of that person.

The proposed bill would convert the Commission's current bright line One-Mile Rule to a rebuttable presumption that could be overcome by a number of specified statutory factors, for example, were the facilities that were more than 1 mile apart purchased with the same financing, do they share interconnection points, such factors like that.

The second provision, which is section 3 of H.R. 4476, has to do with nondiscriminatory access. The heart of PURPA is the mandatory purchase obligation. That is the mechanism that really drives PURPA's effect. This provision requires utilities to purchase the electric power of the qualifying facilities that operate within their service territory. This is regardless of whether or not the utility requires that power and whether or not the QF participated in the procurement process of that utility.

Under PURPA, the power is to be purchased from those QFs on a mandatory basis at the avoided cost rate that is established by the State instrumentality responsible for regulating those utilities.

In recognition of the changing landscape of the American power industry, in 2005, Congress passed EPACT 2005, which had a provision that allowed for the termination of this mandatory purchase obligation when the Commission makes a finding that a QF enjoys nondiscriminatory

access to an electric market.

In implementing that provision of EPCACT 2005, FERC promulgated regulations which established a threshold of 20 megawatts above which it would be rebuttably presumed that the QF did have nondiscriminatory access to the market and below which there is a rebuttable presumption that it did not. This was based on the basic premise that the larger the QF's capacity, the more likely it is to be a sophisticated party and the more likely it would have nondiscriminatory access.

The proposed bill leaves the basic mechanics of this threshold in place, simply lowers the threshold from 20 megawatts down to 2.5.

And then the last provision, section 4 of 4476, has to do with the State and local determinations of need. As I explained a moment ago, the heart of PURPA is that mandatory purchase obligation, and it is fundamental to the way PURPA works currently.

In response to the 1970s energy crisis, PURPA was passed in order to establish a nationwide policy which is explicitly stated in the statute to encourage the development of cogeneration and small power production facilities. That policy objective was largely achieved by this mandatory purchase obligation.

And as drafted, the bill would alter PURPA so as to replace the nationwide policy advancing those interests through the mandatory purchase obligation to a State-by-State regime that would allow State agencies to relieve their utilities of the obligation to mandatorily purchase power from qualifying facilities if the State agency certifies to FERC either that there is no need for their regulated utilities to

purchase the power that the QFs produce or that the utility employs some type of a competitive procurement process.

This represents a fundamental change to the mechanism of how PURPA operates and, as such, as the agency that is charged with implementing PURPA, the subcommittee and Congress are in a far better position to determine whether or not that advances the policy goals of PURPA.

With that, I have no more remarks to start with. I would just like to thank you all for the opportunity to give my thoughts on these bills. I look forward to your questions.

[The prepared statement of Mr. Danly follows:]

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Mr. Upton. Well, thank you very much.

Mr. Danly, back in 2015, Senator Murkowski and I wrote to FERC regarding the state of PURPA in the face of changes that the electricity markets have undergone in the last number of years. And in that letter, we asked FERC to take a comprehensive look at PURPA and its regulations. I know that you held a 1-day conference to discuss those concerns.

Can you tell us what FERC has been doing to update the regs and policies since that letter went?

Mr. Danly. Certainly. Yes.

The Commission has kept PURPA in mind for years. It is one of the main statutes we administrate, and the technical conference was convened.

After the presentations and submissions in the technical conference were reviewed by staff, further comments were solicited on a number of questions that were thought would be valuable to amplify the positions of the people who appeared and submitted the initial round of comments.

Those were received, I believe in November of 2017 or thereabouts, and the issue is still pending before the Commission today for consideration.

Mr. Upton. Do you have some guess as to when they will come to a conclusion or make some finding to go forward?

Mr. Danly. I do not know when that will happen. It is certainly one of the subjects that the Commission has actively -- that it is actively pursuing.

Mr. Upton. Mr. Winberg, we are all grateful that the U.S. is now the largest producer and exporter of LNG. A number of us on this panel have gone places overseas to look at the need and the requests for additional LNG exports to those countries.

In the past, there has been a pretty big backlog of requests by companies to be able to export LNG. Can you tell us what that list may look like today in terms of requests for approvals by the Department of Energy?

Mr. Winberg. Yes. Thank you, Chairman Upton.

There are actually 54 applications that have been filed. There are 29 that have gone through final approval and there is 1 that is conditionally approved. So out of the remaining 24, they are in various stages of the approval process. A lot of them are going through the NEPA process, which I am sure, as you know, can be a very lengthy process. So that is the status.

I can tell you that in 2017 there were three that were approved, Golden Pass, I mentioned in my testimony, Delfin, and then Lake Charles. That was an amendment to an existing one. And then the Eagle Maxville LNG, which is the small-scale facility.

Mr. Upton. And as I recall, each of these projects as they go forward, if they are approved, could mean as much as \$100 million in terms of infrastructure construction. Is that still about the right number, the dollar amount?

Mr. Winberg. I think that is a probably a good number. And a fair amount of investment needed to get through the NEPA process,

because you have to do a front-end engineering and design study, and that is quite expensive as well. So, yes.

Mr. Upton. Well, I would just like to say that as these two bills begin to move forward through the process, we look forward to your engagement and commitment to work with us to help us make improvements to that legislation.

Mr. Winberg. Happy to do so.

Mr. Upton. With that, I will yield to the ranking member of the subcommittee, Mr. Rush.

Mr. Rush. I want to thank you, Mr. Chairman.

Mr. Danly, I really want you to clear up something for me. I am somewhat confused in terms of your opening statement.

Are you here as a witness for FERC or are you a witness for the staff?

Mr. Danly. I am sorry. I didn't understand the question. Could you say it again?

Mr. Rush. All right. You said in your opening statement that you were not representing the commissioners, but you were representing the staff.

Mr. Danly. Yes. That is correct.

Mr. Rush. Explain that to me.

Mr. Danly. I am the general counsel. I am not one of the commissioners. The Commission is a multimember independent agency. The Commission as an agency can only speak through its orders, which are issued by the votes of the commissioners. I am not only unable

to predict what they are going to do at a specific time. I am actually restricted by our regulations from making predictions about what they are going to do and when.

Mr. Rush. All right.

Mr. Chairman, is that sufficient for this committee.

Mr. Upton. Yeah. Yeah.

We would like you to help us with the Senate. Are you able to do that?

Mr. Danly. I am happy to try.

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

All right, Mr. Danly, in your testimony, you noted that H.R. 4605 would delete section 3(a) of the Natural Gas Act, which includes a public interest standard for judging whether or not to approve LNG terminals.

What is the significance of omitting the public interest determination? And why do you suggest that this committee should consider reintroducing such a standard as this bill moves through the committee process?

Mr. Danly. Thank you for the question.

I offered that thought in my testimony for really only one purpose. Because it appeared to me that the purpose of the two bills was to make alterations to what was squarely within the DOE's jurisdiction, I thought that perhaps there was an unintended consequence of removing that public interest standard on the basis of which FERC is charged with overseeing the siting, construction, and

operation of LNG terminals. And I wouldn't want the committee to unintentionally remove the public interest standard that applies to FERC's role in LNG terminal approvals as opposed to the DOE's.

Mr. Rush. Mr. Winberg, under current law the DOE is responsible for conducting the public interest review under section 3(a) of the Natural Gas Act. So I would like to hear from you your thoughts on the significance of vetting this section.

Mr. Winberg. Thank you for the question.

The administration has not taken a position on either of these bills. Congress gave authority to the Department of Energy to perform the public interest review. We certainly look forward to working with this committee to review the bills in more detail and to understand the implications that they have. But ultimately --

Mr. Rush. I certainly want to pick that up. My time is running out -- I think it is pretty clear.

I want to ask Mr. Danly and yourself, Mr. Winberg, do FERC or DOE have any concerns over hastily approving significant amounts of LNG for exports and how that might impact prices for domestic natural gas customers or manufacturing competitiveness or jobs here in the U.S.

As well, we already just witnessed natural gas price spikes during the most recent cold snap. Are either of you concerned about unintended consequences if we start basically approving any and all requests for LNG exports willy-nilly or without a public interest review?

Mr. Danly. I can give a very quick answer. FERC does not have

anything to do with the public interest analysis for exports, and I don't have any opinions on the subject.

Mr. Winberg. To date, DOE has approved just a little over 21 BCF per day for LNG exports. Currently there are only about 3 billion cubic feet per day being exported, so there is plenty of room within what has been authorized and how much we are exporting.

And the studies that we have done, the most recent study suggests that we could have exports up to 28 billion cubic feet per day with no negative economic benefits or no detriment to the price of gas in the United States or our economy.

To your point on the recent deep freeze, bomb cyclone, and the high prices, I would suggest to you that that is probably more a function of inadequate pipelines than it is the resource base. The price of natural gas in Dominion South and down in Texas went up slightly. The price in New England, of course, was up at about \$150. And that spread was mostly due to inability to get gas up into the Northeast during that deep freeze.

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

Mr. Upton. Thank you.

Mr. Walden.

The Chairman. Thank you very much, Mr. Chairman.

Again, thanks to our witnesses for your testimony today.

Mr. Danly, as you know, QF developers can skirt the intent of FERC's One-Mile Rule by breaking a large project into smaller projects to bypass the FERC's size limitation. H.R. 4476 directs FERC to

investigate a list of factors if somebody challenges a QF developer's application.

My question is, can FERC implement these changes to the One-Mile Rule without H.R. 4476 becoming law?

Mr. Danly. Yes. That is something that we can pass regulation -- we can probably get a regulation for.

The Chairman. Well, that would appear to be a pretty easy fix for FERC to make to its regulations. I don't know if you can answer this or not, but is that something FERC has on its mind to do?

Mr. Danly. I do not know what the commissioners have on their mind. I know that --

The Chairman. Do you know what they have on their agenda?

Mr. Danly. I do know what they have on their agenda. And among other comments that were submitted, both orally and in writing, to our tech conference, suggestions along the lines of the provisions of H.R. 4476 were included. It is under active consideration among all the other comments.

The Chairman. So you are limited on what you can predict?

Mr. Danly. Yes.

The Chairman. Got it.

Mr. Winberg, in 2010 and 2012, the Obama administration Department of Energy commissioned studies on the macroeconomic impacts of LNG exports. The major findings in the LNG exports would benefit the entire economy, not just the oil and gas producers.

Could you walk me through some of those findings and answer this

question: Does the Department of Energy plan on updating the study since the last one appears to be from 2012?

Mr. Winberg. At this point, we don't have immediate plans to update the study. As I mentioned, the last macroeconomic analysis that we did, we evaluated 28 billion cubic feet per day as a number that we could live underneath that umbrella. I also mentioned earlier, I believe, that currently we are only exporting 3 billion cubic feet per day.

So there is a good deal of headroom between where we are and where we think we can go and still provide a lot of economic value to the country through construction jobs and operation and maintenance jobs on these LNG facilities.

I do not have any specific numbers for you relative to the economic impact. I am happy to get those for you, though.

The Chairman. Yeah, I think that would be helpful. There is a big debate out there about the importance and effects of LNG exports and jobs and effect on greenhouse gas emissions.

Can you talk at all about what happens when it leaves the country and kind of the fuel switching that may or may not take place, where it goes, LNG?

Mr. Winberg. That is a big part of -- a component of our public interest review, to understand where the LNG is going.

Having come out of the natural gas business, and especially in seaborne trade, I can tell you it becomes very difficult to start chasing molecules that are in ships. It is just the way the seaborne

trade operates. So it isn't easy to track those molecules necessarily.

However, on LNG tankers, if they are going from port to port, we know where the fuel is being delivered. But at any point in time, some of those tankers can be diverted.

The Chairman. Okay.

All right. I guess that is all I have.

Mr. Chairman, I yield back.

Mr. Upton. Mr. McNerney.

Mr. McNerney. Well, I thank the chair, and I thank the witnesses.

Mr. Danly, what forms of generation is 4476 aimed at specifically?

Mr. Danly. Do you mean which category of QF? That is the small power production facilities.

Mr. McNerney. Well, I mean, are they aimed at wind or --

Mr. Danly. The types of power production facilities that can qualify as a QF under that part of the regime are renewables, waste, facilities powered by waste, and --

Mr. McNerney. What would be the most impacted? What form of generation would be the most impacted?

Mr. Danly. I would think probably renewables would be, but I am not certain. I haven't thought about that specifically, but that seems to be logical.

Mr. McNerney. Well, does H.R. 4606 benefit more than one corporation?

Mr. Danly. I am sorry, 4606 or 4476?

Mr. McNerney. 4606. I have changed the subject.

Mr. Danly. Oh, okay. I am sorry. I apologize.

Could you say that good question again, because that threw me?

Mr. McNerney. Does that benefit more than one corporation?

Mr. Danly. I don't know. I would presume -- you know what? I do not know the answer to that. I can't tell you. I am sorry.

Mr. McNerney. Do you have an answer, Mr. Winberg?

Mr. Winberg. I think 4606, as I understand it, is intended to allow expedited permitting of small export and import facilities. As was noted earlier, there is only one right now, but that is not to say that there won't be more applications.

Mr. McNerney. So there is only one right now. So, basically, we are considering a bill that is essentially an earmark, which are currently prohibited by House rules.

Mr. Winberg, moving on, how do you determine whether granting the exports is in the public interest?

Mr. Winberg. There are a number of factors that we evaluate. We look at economic impacts, international impacts, security, and natural gas supply, and environmental impacts, among others. But those are the four chief factors that we evaluate with the public interest regime.

Mr. McNerney. So you examine the impact of LNG imports on domestic supply of natural gas and the international impacts of LNG exports. Is that right?

Mr. Winberg. Yes, sir.

Mr. McNerney. Do you think that the DOE process is valuable for

ensuring that U.S. LNG exports are strengthening the energy sector of our allies and not benefiting those who seek to harm us?

Mr. Winberg. Yes, sir, I do.

Mr. McNerney. Well, good. I think we should be mindful of the effects of removing DOE from the LNG export approval process. Shouldn't we be careful before we green light exports, unlimited LNG exports, without consideration of our national security interests?

Mr. Winberg. I think that is up to the Congress to decide. But whatever Congress decides, we will implement it.

Mr. McNerney. Okay. Thank you.

Mr. Chairman, I yield back.

Mr. Upton. Mr. Barton.

Mr. Barton. Thank you, Mr. Chairman, and thank our witnesses on this panel.

I have a comment since I didn't give an opening statement. I have got a question or two.

Some of the comments I heard in the opening statements and some of the questions from the minority on the question period remind me of the debate that we had 3 or 4 years ago on exporting oil, crude oil.

We were prohibited, we as a country, from exporting crude oil. And because of hydraulic fracturing and horizontal drilling in their shale formations, there became a fairly substantial price disparity between the domestic price of crude oil and the international price. The Arab oil cartel, or the OPEC oil cartel, artificially elevated the world price.

And when we introduced my bill to repeal that, that Mr. Cramer was a big part of and Mr. Flores and a number of other people in this committee, Mr. Cuellar on the Democratic side, we heard these complaints about national security and things of this sort.

Well, what happened? We repealed the crude oil ban. As I speak today, we are exporting about 2 million barrels of oil per day. The U.S. domestic producer is now in the driver's seat. Supply and demand set the price and the price on average is about half what it was from 3 years ago.

It is coming up a little bit. It is a little bit between \$55 and \$60 a barrel, but it has been as low as \$23. But it is darn sure not over \$100 a barrel like it used to be.

American free markets are determining the price of oil in the world, and we are creating trillions of economic benefit every year in the U.S. and overseas. So it has been an unmitigated success.

Now, let's look at natural gas. We literally have more natural gas production capability in the United States than we know what to do with. We really don't know what the resource base is, but we know it is extremely large.

By any normal economic assumption, we have enough natural gas, if we never found anymore, to handle the expected demand of the United States for the 100 to 200 years.

So Mr. Johnson and I think Mr. Latta and a few others have introduced these two bills, 4605 and 4606, and they have the intention of doing for the natural gas markets what the crude oil export repeal

ban did for oil markets. I don't think there is any downside to that at all.

So I just want to put this in context. This country has been so blessed with natural resources, and then doubly blessed with an economic system based on freedom and free markets and free market capitalism, that we are literally the envy of the world. We are the dominant energy producer in the world, and we are going to be.

And Mr. Johnson's bill is simply an acknowledgment of that and says let's use this economic resource that we have to benefit the rest of the world and create more economic benefit here in the United States.

Now, I have one question to Mr. Winberg. The bill, 4605, as currently constructed, only deals with LNG, liquefied natural gas. I am sure that the Department of Energy and the FERC too are aware that there are other natural gas liquids that can be produced and can be exported.

And I have asked Mr. Johnson to consider making a modification that his legislation would apply not only to pure liquefied natural gas, but to other natural gas liquids also.

Mr. Winberg, do you believe that, if you support the bill, that we should make that modification so that we create a level playing field for all types of liquefied natural gas products?

Mr. Winberg. The Department of Energy has responsibility for public interest review for liquids also, as well as LNG. I think it is not my place to suggest to Congress as to whether they ought to modify or expand the modification of 4605.

Mr. Barton. Well, let me rephrase it. Do you believe the Department would officially oppose creating a level playing field for natural gas products to be exported?

And the answer is, no, we do not oppose it.

Mr. Winberg. Congressman Barton, what I know is that we have an abundance of oil and natural gas in this country. Your statement, I absolutely agree with. And I share the statement about the resource base as well, the reserves and the resource base in the United States. And our opportunity to become a continued long-term net exporter of natural gas, natural gas liquids and oil, is something that is in the interest of the United States.

Mr. Barton. My time has expired.

I appreciate the generosity of the chairman.

Mr. Upton. Mr. Peters.

Mr. Peters. Thank you, Mr. Chairman.

Just thinking about Mr. Barton's characterization of the abundance of energy, which I think we all agree on, and he knows better than anyone, this isn't your issue, but the rush to drill for oil off the coast seems incredibly ill-timed given that abundance -- I guess except in Florida, which the Federal Government seems to think is the only costal State with tourism. But that is not your issue.

I guess the issue I wanted to ask you about, Mr. Winberg, is the nature of the public interest discussion, I think, clearly one concern when that law was passed was supply, and I think that that has been fairly well established. That is not so much a concern of ours if we

have enough energy for the next two centuries.

Mr. McNerney also talked about the national security interests that may come up in the movement of natural gas.

But the third was, we mentioned, and I just want to explore a little bit, was the environmental interests.

Can you describe for me what the nature of the analysis is around environmental concerns when you are talking about making this public interest determination?

Mr. Winberg. Actually, the environmental assessment for LNG under the Natural Gas Act falls to FERC, so we are a supporting agency. So they do the vast majority of the NEPA review.

So I apologize. I can't speak to detail.

Mr. Peters. Right. I may be confused then.

Mr. Danly, maybe you can answer this. Is this environmental analysis going to be eliminated as part of the proposed bill?

Mr. Danly. No. The process by which the siting and construction operation is conducted is still going to have certain coordination between different agencies for approval. So, for example, for these marine gas terminals, we would have coordination with the Coast Guard, Department of Transportation.

Mr. Peters. No, I understand that. I am talking now about the movement of natural gas. Because my understanding was that there was an analysis in Mr. Winberg's section on the environmental impacts associated with the import and export of natural gas. Is that not right? Am I reading that wrong? Maybe I misheard.

Mr. Winberg. That is correct, but it is a joint effort between FERC and DOE.

Mr. Peters. Okay. So if the bill passes, and I want to understand what it would do, it would be to eliminate this public interest analysis associated with the movement of natural gas, whether you did it or FERC did it. Isn't that right?

Mr. Winberg. Well, our read of 4605 is that it does not appear to affect FERC's requirements under the Natural Gas Act.

Mr. Peters. The first requirements are associated with the siting of a facility, not with the movement of the natural gas. Is that correct?

Mr. Danly. That is correct.

Mr. Peters. Is there today an analysis of the environmental effects associated with the movement of natural gas, import or export, that would be eliminated by virtue of this bill?

Mr. Winberg. Potentially, yes.

Mr. Peters. I think so.

So what I want to know is, what are the components of that analysis which we would be giving up? What are the things that you are looking at as an assessment of the environmental impacts of the import or export of natural gas?

Mr. Winberg. I don't know the specific components of the environmental impacts portion. I certainly can get that over to your office.

Mr. Peters. I would love to see that. I think we ought to know

kind of what we are giving up. In particular, I am a little concerned -- I think natural gas offers a lot of potential. I think we all understand it burns cleaner than coal. But in my other subcommittee we had Mr. Pruitt in, and he didn't seem to be as convinced about the need to control fugitive methane emissions as I think some of us are.

And fugitive methane emissions can really surrender the benefit of natural gas from a climate perspective even though it burns cleaner than coal. If you are losing a lot of it to the atmosphere in terms of extraction or distribution, we are losing that benefit, and I think we would like to know that. I think that might be part of the analysis that we want to look at and associated with import and export.

So I would like to have that information and appreciate your sending it over.

Mr. Winberg. I would be happy to do so.

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

Mr. Upton. Mr. Shimkus.

Mr. Shimkus. Thank you, Mr. Chairman. Great hearing.

Thanks for being here.

Would our clerk put on the -- and members on the committee have seen this photo before numerous times, some may have not, import terminal. And I point to the front. I am not a Navy guy, so what is the front? The bow? The bow.

And on the front of the blue terminal, which is really a ship, on the bow you see in English, the word "independence." Can anyone

guess where that is located?

It would give you an idea that it might be a North American-placed vessel or a vessel placed in England, an English-speaking country, but that is actually an import terminal in Lithuania. And I note that because it addresses this issue about the importance to national security of LNG imports and exports for those of us.

So the public interest, I think, Mr. Winberg, as we talk about this vague term, and then you kind of define down, part of it is the public interest to our strength with our allies and friends. Lithuania and the Baltic countries, I spent a lot of time dealing with their interests, a former captive nation, a former Eastern European country, that has been part of a concerted extortion by the Russians using the tool of energy.

This has allowed them to free themselves from the shackles of Russian energy extortion. And so it talks about the great ability.

Now, they have been crying for U.S. LNG, and I think they finally first -- this has been up for about 18 months now. And I think they have now recently signed a contract with Chevron for, quote/unquote, like you said, the molecules are molecules. The world market is the world market. That is what I keep trying to preach to them.

But U.S. LNG, they want U.S. natural gas into their port. So that is going to happen. And it is a sign of, for them, freedom and democracy, strength, and alliance with the West. So that is why a lot of us are just so excited.

You just look at the Eastern European, the former captive nations,

just go from the Baltic Sea down to the Black Sea, and you see the turmoil, and you still see the stress that other countries have. Hence the discussion that we are having about smaller LNG terminals in this debate. It has been a good hearing in that.

For this terminal, in that region of the world, there are smaller LNG terminals being debated and planned for up the Baltic Sea into Finland and those areas which will not have a need for a larger terminal or may have difficulty with ice where a smaller terminal can provide the access.

Now, a lot of us had a chance to -- well, not a lot of us, but some of us had a chance to go down to see Puerto Rico during -- in a hurricane. And we are talking about, really, energy security for them. A smaller LNG terminal would be great for them. It would be part of the all-the-above energy strategy if you want to help Puerto Rico free themselves from kind of their -- the capture they have, because they are an island nation and have a failed electric system.

RPTR BRYANT

EDTR CRYSTAL

[10:16 a.m.]

Mr. Shimkus. And there is a lot of this debate.

So I wouldn't be so quick to rush judgment on the importance of incentivizing smaller LNG facilities, or at least freeing it up and giving some more access for expedited permitting, because there is, I believe, a pent-up demand from that worldwide. And I think now with the current hurricanes that have gone through, the signal has been sent that even our own citizens of our country were probably benefited by that.

So, Mr. Winberg, in my 18 seconds left, just can you confirm that the public interest in national security is part of the public interest debate?

Mr. Winberg. Yes, absolutely, I can confirm that. And our DOE proposed rule for small facilities is exactly targeted to a large degree at Caribbean nations, island nations, and on islands that truly do need LNG in small quantities.

Mr. Shimkus. And I would just end by saying an LNG terminal is probably not \$100 million. It is probably in the \$2 billion to \$3 billion or the \$4 billion in construction and economic benefits.

And I will I yield back.

Mr. Upton. Mr. Tonko.

Mr. Tonko. Thank you, Mr. Chair.

And thank you to our witnesses for joining us today.

Mr. Danly, am I correct that under PURPA, qualified facilities must have a capacity less than 80 megawatts?

Mr. Danly. Not entirely. There is a nuance that I should point out, which is that cogeneration facilities, which are also qualifying facilities, can have larger than 80-megawatt capacities.

Mr. Tonko. Okay. And is that threshold listed, stated in PURPA statute?

Mr. Danly. Yes. It is a statutory threshold of 80 megawatts.

Mr. Tonko. Okay. Thank you.

The current existing presumption is that qualified facilities with a net capacity above 20 megawatts have nondiscriminatory access to interconnection services and markets. What types of barriers exist for small producers that may hinder their ability to get their market access?

Mr. Danly. The presumption that that threshold is based on is that the much, much smaller qualifying facilities are simply less sophisticated parties that don't have the resources and personnel or experience interacting with the market that larger energy companies that might be making the larger QFs would have.

So it comes down to technical expertise, experience in having their power provided to markets in others contexts, things like that.

Mr. Tonko. And transmission services or interconnection ability?

Mr. Danly. Sure. Everything from the process of getting

connected to actually ensuring that they get dispatched.

Mr. Tonko. Okay, thank you. And is this threshold for presumption of nondiscriminatory access in the PURPA statute or was it established by FERC?

Mr. Danly. FERC established the 20-megawatt limit.

Mr. Tonko. Was that after the EPA Act of 2005?

Mr. Danly. Yes, that is correct. Yes.

Mr. Tonko. So in 2006, FERC conducted an extensive proceeding and established a presumption that all facilities larger than 20 megawatts have nondiscriminatory access to market. What was the reason behind the 20-megawatt threshold 12 years ago?

Mr. Danly. In part, the 20-megawatt number is used in other parts of FERC's regulations. For example, it is the dividing line between the large interconnection and small interconnection agreements that we have in other contexts. For creating a rebuttable presumption, a line has to be drawn somewhere, and it accorded with other parts of FERC's regulatory regime.

Mr. Tonko. And what is your understanding of the significance -- section 3, let me first state, section 3 of H.R. 4476 would lower that threshold to 2.5 megawatts.

Mr. Danly. Yes.

Mr. Tonko. So what is your understanding of the significance of that threshold?

Mr. Danly. Of the 2.5-megawatt threshold?

Mr. Tonko. Yes.

Mr. Danly. That presumably this would be enacted, because the judgment of the subcommittee in the House is that the times have changed such that even smaller qualified facilities have sufficient sophistication to get access to the markets on a nondiscriminatory basis. I assume that that would be the intent of the bill.

Mr. Tonko. I have heard concerns from a number of industrial energy users. Apparently, some industrial qualified facilities are certified as small power producers. Can you explain how or why this happens?

Mr. Danly. Do you mean as opposed to being cogeneration facilities?

Mr. Tonko. Right.

Mr. Danly. I am not sure about the specific facts of the case. Do you have any more information about that?

Mr. Tonko. Not offhand. But I am just wondering if you have any sense of understanding the significance for that threshold.

Mr. Danly. I would imagine that in the ordinary course of business, because cogenerators are not limited to 80 megawatts, they would typically choose to be designated as a cogenerator. So nothing springs to mind immediately as to why they would make that decision.

Mr. Tonko. Well, to clarify, not all industrial qualified facilities would be exempt from this legislation.

Mr. Danly. No.

Mr. Tonko. Okay. Thank you, Mr. Danly.

Well, Mr. Winberg, you had earlier explained the factors of DOE

using factors to determine whether an LNG export project is in the public interest. And, obviously, our Nation's energy use and needs change over time.

So I, for one, believe that this is a feature of the system that these projects are evaluated and that someone is assessing the consequences for American consumers and manufacturers as well as our energy and national security.

So I think that is important to bear in mind as we go forward with some of the bills that are introduced and the changes that would be produced.

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

Mr. Upton. Mr. Latta.

Mr. Latta. Well, thanks for being here.

And thank you very much, Mr. Chairman.

And if I could follow up a little bit where my friend from Illinois was with his discussion on the LNG exports going into the Baltic nations.

Mr. Winberg, DOE has recently issued a proposed rule for small-scale LNG exports. Small-scale LNG projects could serve markets in Latin America and the Caribbean, but these job-creating projects are bogged down with a lot of unnecessary red tape.

Where do you see the greatest potential for small-scale LNG projects are right now for U.S. producers?

Mr. Winberg. As we talked about earlier, I think primarily the Caribbean, Central America, and South America, possibly some European

countries as well. But for those small loads on seaboard trade, distance becomes an issue if you have got --

Mr. Latta. Right. And besides, when we are talking about Lithuania and Latvia and Estonia, when you are talking about other European countries, who would you have in mind on that? Because I know that some of us were over to see some of the LNG ports out around in the Iberian Peninsula. Where else would you see?

Mr. Winberg. DOE doesn't take a position on where LNG ought to be traded. We have free trade agreement countries and nonfree trade agreement countries.

So as we get in the applications, we review them, based on whether it is FTA or non-FTA, but we don't take a position on where LNG should be traded.

Mr. Latta. Okay. And under the H.R. 4606, how would this improve the process for permitting these small-scale facilities?

Mr. Winberg. Our read of 4606 is that any small export or import would be granted without modification or delay. So it would be, in effect, the same procedure that we would use with FTA countries.

Mr. Latta. Let me follow up. There was a little bit of discussion when we were talking about Puerto Rico. As we all know, that Puerto Rico's grid was devastated by Hurricane Maria, and here we are more than 100 days out and power restoration is still not completed.

What role could a small-scale LNG play in Puerto Rico's grid modernization?

Mr. Winberg. I think the role that LNG would play would not be so much in the grid modernization, but perhaps in the electricity production modernization, which arguably is a part of it. They burn a significant amount of oil. Also, there are opportunities for LNG to be brought into Puerto Rico to displace oil, lower-emission, higher-efficiency units. So there are some significant advantages.

Mr. Latta. Thank you very much.

Mr. Chairman. I yield back.

Mr. Upton. Mr. Loeb sack.

Mr. Loeb sack. Thank you, Mr. Chair. Great discussion today, as always. I always learn a lot in this committee, and we have great witnesses and great questions from my fellow members.

Once again, I have to brag about Iowa and wind power.

Mr. Upton. Time has expired.

Mr. Loeb sack. Too bad.

Look, Iowa is a success story when it comes to wind energy. Texas is as well. Texas produces more wind energy than Iowa, but --

Mr. Barton. Give him more time, Mr. Chairman.

Mr. Loeb sack. For the size of our State, we are doing great. And the fact of the matter is over a third of our electricity in Iowa comes from wind, and it has just been a great story. It is good-paying jobs, plays a critical role in our economy. In 2016, Iowa produced about 20 million megawatts of wind energy, and by 2020, I think we are going to get to 40 percent of our electricity is going to come from wind.

So, obviously, when we move forward on PURPA, I think it is really,

really important that we ensure that wind energy is deployed in the most cost-effective manner for my constituents, and also ensure that the Federal Government continues to play a role in promoting renewable energy. I think that is absolutely critical going forward and I think we can get some good bipartisan agreement on that.

I really just have a question for Mr. Danly. There are concerns, of course, about this, qualified facility developers who have been developing some large wind farms, and they intentionally disaggregate and place portions of the project more than a mile apart to ensure that it doesn't exceed the PURPA megawatt threshold.

How will this legislation, Mr. Danly, going forward, ensure that qualified projects are not subdivided to take advantage of higher PURPA prices?

Mr. Danly. The intent of the legislation is to allow the presumption of that One-Mile Rule, which is the bright line rule currently established by FERC regulation. That at the moment is an absolute rule.

It would convert that to a rebuttable presumption. And it can be rebutted by a series of statutory listed factors: whether they share common financing, if the land comes from the same purchase, if they share an interconnection, if they use the same resources, have the same people on it. That would be the list of the various factors.

And if the presumption is rebutted, then having crossed that 80-megawatt threshold, they would not qualify for the other benefits that come with being a qualified facility, most importantly the

mandatory purchase obligation.

Mr. Loebsack. So that is how you see it. It is implemented in that sense, in what FERC will do to implement this.

Mr. Danly. Say that again, please.

Mr. Loebsack. So that is how you see the implementation going forward.

Mr. Danly. FERC will implement it by, when asked, presumably conducting a review on the fact-based statutory factors.

Right now, qualifying facilities are certified by one of two ways, primarily through self-certification or by having a FERC review process. So it may have an impact on that second of the two ways of being certified, which is really a minority of QFs get certified that way.

And then for the others, presumably people who have an interest that is adverse to that determination or that self-certification would bring a petition for FERC to review it. That is my presumption -- I am not sure, of course -- based on what the bill currently reads.

Mr. Loebsack. Because it is a big issue, there is no question about that, and I am sure not just in Iowa.

In your opinion, also, does it make sense to allow States to require QFs to participate in a competitive solicitation process to ensure that renewable energy is deployed in the most cost-effective manner?

Mr. Danly. To the extent that the subcommittee and Congress do not want to advance PURPA's goals under the current mechanisms that

PURPA has, then having a competitive process is another viable alternative.

Mr. Loebsack. Okay. Thank you.

Thank you. I yield back, Mr. Chair.

Mr. Upton. Mr. Johnson.

Mr. Johnson. Thank you, Mr. Chair. I appreciate it.

And thank you, gentlemen, for joining us today.

Mr. Winberg, LNG exports and PURPA reforms are two issues very, very worthy of our committee's consideration, especially as it relates to bringing our energy policy into the 21st century.

I am encouraged by this administration's effort to find sensible ways to unleash America's energy. Secretary Perry and the DOE have carried out that approach through their continued approval of LNG export permits and through the agency's work on small-scale LNG exports.

But DOE can only do so much, as the current law pertaining to LNG exports was written at a time when our energy landscape was very different than it is today. The bills we are discussing today reflect the realities of our energy abundance, with over 2 trillion cubic feet of recoverable natural gas beneath our feet.

Congress, and this committee in particular, have done a lot of work to advance bipartisan bills that encourage LNG exports. Last Congress, LNG export bills advanced not only in the House, but through the Senate as well, always with bipartisan support.

So I think I have heard you say it before this morning, Mr.

Winberg, but because these are my bills that we are talking about today I will sleep better if I hear you say it again. Will you help continue that work by working with the committee and me on these bipartisan bills that we are discussing to advance LNG exports?

Mr. Winberg. Yes, absolutely, we would be delighted to help.

Mr. Johnson. Okay, good. Do you know if the DOE has plans to further its work on expediting and reforming LNG export, the process, the permitting process?

Mr. Winberg. We do through our latest notice of proposed rule, which we came out with on September 1 of last year, and that specifically addresses the small-scale exports.

And so we have received comments on that. It is not finalized. It hasn't been published in the Federal Register. But we are reviewing the comments and we plan to publish shortly. It is fairly closely in line with 4606.

Mr. Johnson. Okay. All right.

My colleague Mr. Shimkus touched on this a little bit. You know, for too long we have seen countries like Russia use energy as a weapon. They have a stranglehold on Europe's energy supply. But with our LNG exports, that has already started to change.

How, in your opinion, have U.S. exports of natural gas helped our allies and strengthened our hand diplomatically on the global stage?

Mr. Winberg. I think the access or the production of U.S. fossil energy resources, whether coal, oil, or natural gas, have had a profoundly positive impact with our allies in helping them to ensure

energy security and, therefore, security in general, much as it has here in the United States.

Mr. Johnson. Well, Russia gets about -- and experts differ on the exact number -- but somewhere on the order of about 50 percent of their revenue comes from the sale of oil and gas. About 80 percent of that resource runs under pipelines that go across the Ukraine. Seventy percent, I have heard, of their oil and gas sales are to our friends and allies in the region. And they have been known to turn the switch off when things weren't going their way in the past.

I believe that this gives the administration, especially in light of the events going on in the world and the temperature of our relationship with the Russians, in particular, today, a new and different kind of leverage than we have had in the past. Would you agree with that?

Mr. Winberg. Absolutely.

Mr. Johnson. Okay. All right.

Mr. Chairman, I yield back.

Mr. Upton. Mr. Schrader.

Mr. Schrader. Thank you, Mr. Chairman. Good hearing, I agree.

Mr. Danly, you indicated that or seemed to indicate that very few self-certifying applications come through the system. And I have got a pretty extensive list of folks that do self-certify in my State. We got over 2,000 megawatts here in just a little over a year and a half. Could you comment on that?

Mr. Danly. I think I may have been misunderstood. We get about

2,000, roughly 2,000 self-certification requests a year, and just a handful of the FERC certifications in which the agency does the certification on behalf of the entity.

Mr. Schrader. Okay. Because there clearly is a ton of it going on.

And we sent you all a letter, many members of the committee, including myself, back in June, talking about the gaming of the system. I have got a couple of great examples here where Fresh Air Energy in Jefferson County, Oregon, has three different applications that were approved for 79.66 megawatts, just under that 80. And then again in Klamath County, again, Fresh Air Energy had five successful sitings for 80 megawatts.

So, clearly, we need to be doing something with the system to prevent that gaming.

From your technical review hearing, what is the current state of play from the Commission with regard to solving some of these problems and dealing with that one by one?

Mr. Danly. So the Commission was in receipt of the oral presentations at the technical conference and the postconference submissions, and it is currently under review before the Commission.

Mr. Schrader. Okay. In your testimony, you comment about the rebuttable presumption, and you have elaborated here about the conditions that might be used to deal with some of these instances. But you also talk about resources.

Without having that clear bright line, what sort of resources is

the Commission going to need to be able to adequately get through the application process, as you now have?

Mr. Danly. It is difficult to predict the number of people that might challenge a self-certification. If challenges come up, then it is going to require a fact-intensive review in some mechanism. I can't imagine what the mechanism would be yet; we haven't dealt with it.

But there would have to be some mechanism to review the facts that are under the statutory factors. And it would require a significant amount of personnel time if we find ourselves facing --

Mr. Schrader. You would need more resources than you currently have?

Mr. Danly. I am not sure that is true. I just know that it is going to require us to devote time and manpower to a subject that we have never had to deal with before.

Mr. Schrader. Okay. So either you have a lot of extra employees right now or you can easily -- or you need more people to deal with the process.

Mr. Danly. Presumably. But depending upon the shape of the final bills that are passed, we could find ourselves having less work to do on other subjects.

Mr. Schrader. Okay. Okay. Very good. Very good.

Talk a little bit about the State-by-State determinations rather than having FERC do it. How would that, to your point a moment ago, affect your workload?

Mr. Danly. Do you mean the State-by-State determinations as to

whether there is need or a competitive solicitation process? It would not directly have much of an impact on FERC staff time. That would really have more to do with whether or not the QFs are even able to participate.

So that really is an issue of whether or not the subcommittee wants to abandon this national policy. It is not a resources question for us.

Mr. Schrader. How would that affect the industries themselves or the partners, our energy partners?

Mr. Danly. Well, depending upon what decision each State makes, the effect could be that there are less incentives for qualifying facilities of different types to put forth the effort and the risk of trying to develop a generation facility. It could be that that has a stultifying effect. But in other areas where there are competitive markets, it may not.

It is difficult to predict in the laboratory of democracy the different possible outcomes. This is one of the great problems with PURPA, is how complicated it is with all the different State regimes for avoided cost calculations and the like.

Mr. Schrader. Shifting gears a little bit, we haven't talked a whole lot about the industrial qualified facilities. What degree of problems with the gaming issue are presented by these facilities compared to the others?

Mr. Danly. When you say the industrial ones, I took --

Mr. Schrader. Cogeneration.

Mr. Danly. Okay, cogeneration. Right.

Cogenerators are in a really different category from the small power producers. They are very often in industrial facilities that are, in fact, themselves net consumers of electricity. They are either using the heat that is produced for industrial processes to generate electricity after the process is over beforehand, and this is simply a way to make money and be more efficient in the use of the generation.

Mr. Schrader. They are not part of the problem?

Mr. Danly. When it comes to gaming?

Mr. Schrader. Yes.

Mr. Danly. No.

Mr. Schrader. I yield back. Thank you.

Mr. Upton. Mr. McKinley.

Mr. McKinley. Thank you, Mr. Chairman.

I applaud Bill Johnson's legislation on LNG. I think this is something we have needed for some time, and he has addressed a problem that is starting to emerge or issue of how we might be able to help out with that.

Our districts are right opposite each other. The only thing that separates his congressional district from mine is the Ohio River, and that is just a line on the map.

So we are in the middle of the Marcellus and the Utica Shale gasses formations, and we are seeing this resurgence as this country is pivoting away from fossil fuels or coal in a way that we have an opportunity to take an advantage of the Marcellus and Utica Shale gasses

that are there.

It has had a profound effect on our valley, improving the morale and the hope that we are going to see in this country some positive things happen with that.

We are now at a point between our two districts that with the Marcellus and Utica, we are producing 50 percent of all the shale gas in this country, 50 percent. That is incredible, the opportunities then that come with that.

So, again, I thank Congressman Johnson for that.

From what I can gather, talking to EIA, is that this shale gas, the potential that we have from these two formations, could provide all the gas for this country for 58 years. Fifty-eight years.

That is only with 50 percent. Remember, the rest of the country, down in Texas and elsewhere, they have got shale gas formations there coming. But just from the Marcellus and the Utica, we could provide all the gas in America for 58 years.

So it really is opening up a new opportunity for us, and what we have to do is get this bill passed and continue to do this.

Some of the critics say that if we export our LNG, it is going to raise prices. That has not been proven to be true. It is not accurate at all. It is just unimaginable opportunities that we have if we can pursue this.

And what the impact is for my district in West Virginia, there is a study out done by the Fraser Institute that ranks around the world about 97 different jurisdictions, States, countries, about where would

you put your investment in fossil fuels? Where would you invest in energy?

Two years ago, West Virginia ranked 22nd in the world where they should invest. Last year we ranked fifth, fifth best place in the world to invest, because of what this formation, what it is going, the opportunity we have in creating that.

So we are seeing as a result of that, we are seeing now that we have the second-fastest growing GDP in America, in West Virginia. We are seeing Cheniere over in China investing \$84 billion in West Virginia, is trying to explore and use this gas to try to help create jobs for people with this.

So I see just a series of things, but yet we hear pushback from some people: We don't want to do this. We want to leave that gas in the ground.

So I am saying, what I don't understand -- I will start with you, Steve -- excuse me, Mr. Winberg, you and I have known each other for too many years -- why would people want to stop something, this momentum that is recreating wealth, opportunity, and an economy and strong families and keeping them? Why would people stop that?

Mr. Winberg. Sir, I really can't answer that question on why people would want to stop it. But to your point in the Marcellus and Utica area, there are numerous opportunities. There is an LNG opportunity.

We need more pipeline capacity to remove that rich resource that you have in your State and in surrounding States and move it into LNG

terminals, for example, at Cove Point, to take advantage of the liquids in the Marcellus Shale for ethane production, which then goes into chemical production, the opportunity to move that gas up into the Northeast, where it was so badly needed just a couple of weeks ago.

So numerous opportunities there. You can articulate them much better than I can.

Mr. McKinley. I think the ethane storage, you and I have had meetings about that, instead of sending it elsewhere, if we will be able to use that here in our area, that is positive.

But I also want to emphasize to you again, Mr. Winberg, I am not trying to go away from coal. I just think we can have a dual track in energy dominance.

And this is an opportunity. We just have to continue to explore it and put more money into research and how we might be able to have clean coal technology as well as we are developing this petrochemical industry in other than the Gulf Coast.

Not that I don't support my friends in the Gulf Coast. I think as a safety valve, we should have someplace else as well.

So, with that, I yield back my time.

Mr. Upton. Mr. Green.

Mr. Green. I do represent the Gulf Coast.

I want to thank the chair and the ranking member for this hearing today.

Both PURPA and LNG exports are issues that in our area I care deeply about. And to follow my friend from West Virginia, when folks

at my meetings come up and say, we want to leave it in the ground, I say, that is not a Texas value, if we can sell it to someone or build a plant.

And I have to admit on the export of LNG, I was concerned, because the upper Texas coast -- well, literally, most of the Texas coast, from Corpus Christi over in Louisiana, is huge petrochemical complexes. And with the reasonable-priced LNG, we have seen huge numbers of expansion and new chemical plants, just because of the availability of the natural gas and the different molecules that you get from there.

I was concerned that we may price ourselves out of the market, but I haven't seen that. We have Cheniere there in Louisiana. I mean, we have a number of ports along Texas that have permits in the process, and they are not small ones. They are very large. And, in fact, I had a joke a few years ago that if you had a 5-foot ditch that ran from the Gulf of Mexico into it Texas land, they wanted an export permit for LNG. And if you do the small ones, you may end up making that truthful.

But one of my concerns is I have always been a very big supporter of NEPA, but smaller plants may not have that issue. But I am concerned about the exemption of that for these smaller plants, because it wouldn't be unusual for maybe a company to build five export facilities that was just below the level so they could get past the NEPA review. So I think our committee needs to look at that.

Mr. Winberg, the small volumes, like I said, is important. Under the DOE proposed rulemaking, how many companies would qualify for the

streamlined process for quick expedition? Do you have any idea how many companies that would qualify for the streamlined process?

Mr. Winberg. Yes, sir. If you are asking about the current applications that we have --

Mr. Green. Either the current applications or ones that have been built.

Mr. Winberg. At present, there is only one that would qualify, and that is the Eagle Maxville LNG small-scale facility.

I do not know how many other developers or potential LNG exporters might be considering small facilities. We have heard there are a couple people out there that are interested in this, but we haven't gotten any applications, and so I can't comment on it specifically.

Mr. Green. Okay. Do you have an estimate on what the daily volumes increase would be under such a rule, if it became final?

Mr. Winberg. I don't have an estimate, but the limit that we would have for the small-scale facilities would be 0.14 billion cubic feet per day for a facility. But, again, not having an estimate on how many might try and avail themselves of this small-scale opportunity, I can't give you a total number.

Mr. Green. DOE in its proposed rulemaking required a small-volume exporter to meet categorical exclusions critical under NEPA to be approved.

Can you tell me why the DOE felt it was important to include NEPA protections under this rule?

Mr. Winberg. Yes, I can. It is because the small-scale

facilities, based on what we have seen, the primary markets would be the Caribbean, Central America, and South America. And without a small rule exclusion or a small facility exclusion, the cost to build a large facility for that many potential end use points we believe would be prohibitively expensive.

Mr. Green. Okay. One of the concerns I have is when FERC does it, does FERC also require a NEPA review?

Mr. Danly. For the siting construction, yes.

Mr. Green. Okay. So is there any duplication between what DOE does and what FERC does for the NEPA review? Is there any --

Mr. Danly. In fact, in our review -- you are a cooperating agency, correct?

Mr. Winberg. Right.

Mr. Danly. So, yes, there would be no overlap.

Mr. Green. So there is no dual regulations or oversight?

Mr. Danly. The statutory regime neatly divides the responsibility into two different buckets: FERC for siting, construction, operation, and DOE for export.

Mr. Green. I am out of time, but one of my concerns is that the bill today would take away what the DOE has done on the rule, and I have a concern on that.

Mr. Chairman, obviously, I have a lot of questions, and I will submit them.

Mr. Upton. Great. Thank you.

Mr. Flores.

Mr. Flores. Thank you, Mr. Chairman.

I appreciate the panel for joining us today on these important pieces of legislation.

Mr. Danly, I have two quick questions for you. The backdrop for the first question is this. Under the current framework for the Natural Gas Act, FERC has delegated authority over LNG export facilities. And in your testimony, you have stated that H.R. 4605 primarily concerns the authorities of the DOE. The DOE witness seems to agree with that, because he stated the bill makes no modification to FERC's jurisdiction.

And so we need to make sure we get this on the record clearly, and so the question is this. Does H.R. 4605 affect or expand FERC's jurisdiction in any way?

Mr. Danly. Upon my reading of it, no. But if you have a specific idea, I am happy to talk more about it.

Mr. Flores. No. I mean, I read it the same way you do. And so we just need to get that into the record so that some of the other comments that have been made here today are rebutted by the testimony of our expert witnesses.

The next question is, as you are probably aware, there are new technologies to transport natural gas and natural gas liquids other than in an LNG form. And so, because of that, they can be transported either in vehicles or in vessels that are not LNG vessels, and also in ways other than pipelines. And so I understand that DOE has determined that imports and exports of these mixtures should be

regulated under the Natural Gas Act.

Since the export facilities for these different types of products are not LNG terminals and they are not connected to interstate gas pipelines, FERC doesn't appear to have any apparent authority over siting and construction. So if H.R. 4606 were to become law, would FERC take that same position, that they do not have jurisdiction over the export of these products since it is not LNG and not connected to pipeline?

Mr. Danly. I cannot predict what the Commission will determine as far as what its jurisdiction is, but the way I read it here, it would remain the same. There is no jurisdiction.

Mr. Flores. Okay. I think you have read it correctly.

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

Mr. Upton. The gentleman yields back.

I would note that votes have started on the House floor. We are going to do Mr. Kennedy, and then we are going to take a recess until we come back after votes.

So Mr. Kennedy is recognized.

Mr. Kennedy. I promise I will be brief, with the eyes of everybody in this room now upon me now to be so.

I want to thank the witnesses for coming. I want to thank the chairman and ranking member for an important hearing, very helpful on a number of issues.

Mr. Danly, it is a pleasure to meet you. We have not had a chance to meet personally yet, but I appreciate your presence here. As you

might be aware, our office has worked very closely with a number of folks at FERC, including your predecessor, on a couple pieces of legislation. I know you are not here to talk about one of them today, but I did want to try to clarify a couple of things.

You testified over in the Senate back in October about one of those bills, the Fair RATES Act, that has passed unanimously by this body already this Congress and passed unanimously out of the House of Representatives, again, last Congress as well.

We worked very closely with FERC in the drafting of that legislation. Your predecessor had testified as well, largely in support of that. I gather from your testimony on the Senate side that you have some reservations there.

Candidly, looking at some of the testimony, I am not entirely certain I understand what those reservations are. I don't want to put you on the spot, given that you are not here today to speak about that.

Mr. Danly. I am happy to answer questions about it.

Mr. Kennedy. So the point of the legislation is to try to make sure that consumers always have at least some knowledge as to and a voice in some of the decisions that are being done by FERC.

What happened, the legislation itself was in response to essentially a forward capacity auction, FCA 8, several years ago, where forward capacity prices, because of a shortfall, went from a billion dollars before to \$3 billion to then \$4 billion to \$3 billion, so \$10 billion over the course of 3 years, and in that specific auction deadlocked two-two.

Now, what was interesting also about that deadlock is a Democrat and Republican appointee was on one side and a Democrat and Republican appointee was on the other. Because there was a two-two tie, because of a gap, in my view, of the way that the statute was drawn, a two-two tie becomes, in effect, an approval by operation of law.

Mr. Danly. That is correct.

Mr. Kennedy. And there is no way for consumers to then appeal it. What this legislation seeks to do is to say a two-two tie should enter as a decision so that that can be appealed.

The mission of FERC -- I believe I have it right -- or part of the mission is to, quote, assist consumers in obtaining reliable, efficient, sustainable energy services at a reasonable cost through appropriate regulatory market means.

Obviously, putting them in a circumstance where you have this tripling and then quadrupling of these capacity rates without any measure then to get a rehearing or justification for that, particularly given the unique circumstances that surrounded Forward Capacity Auction No. 8, seemed ripe for a fix to that statute.

Clearly, the House of Representatives agreed. It was a bipartisan bill. Again, it passed actually on the first day of the Trump administration.

So I understand your reservations. I also am cognizant of the fact that I promised the chairman here I would be quick. All I am asking for is some engagement with you and your office to try to understand in a bit more detail what your concerns here are, as I believe that

the bill was meant to address that concern.

Mr. Danly. I would be delighted to work with you. Do you want me to express the reservations I did before?

Mr. Kennedy. To keep my friendship with Mr. Upton, no.

Mr. Upton. We budgeted 2 minutes. It has been 4 now.

Mr. Kennedy. We will follow up.

Mr. Upton. All right. Thank you very much.

We are going to have to come back. I know Mr. Walberg has questions that he wants to ask. I think it will be pretty quick. We are told that we have three votes on the House floor, so we will do that and then we will come back.

[Recess.]

Mr. Olson. [Presiding.] The hearing will come back to order, and we will proceed as before with the members asking questions from the witnesses. The next question will come from the gentleman from Michigan, Mr. Walberg, for 5 minutes.

Mr. Walberg. Thank you, Mr. Chairman. I appreciate the opportunity to get well on my way to 10,000 steps.

Mr. Danly, thank you for being here. And we appreciate the work of your staff in assisting us, getting us information as we have developed our legislation to this point. So I appreciate that.

State utility commissions set avoided cost rates. They have the authority to do a number of things, appropriate length of PURPA contracts. It seems to me that they have significant authority in implementing PURPA.

I noticed in your testimony you stated granting PURPA exemption findings to the States would create a State-by-State energy program. Essentially, I view this as providing State regulators with the tools to help each of them meet their State's electricity needs at the lowest cost to the ratepayers.

Couldn't one argue that extending FERC's waiver authority is keeping in line with State implementation, coupled by strong Federal oversight?

Mr. Danly. So, yes, you make a point here, which is that there is already some degree of balkanization in the way that PURPA is implemented, because the actual recovery under the mandatory purchase obligation is set at the rate that is established by the State utility commissions. There is no doubt about that.

And this would be a further step in the direction of allowing the States to act independently of one another, based upon their own either political or policy goals. The only difference is if a QF is capable of being guaranteed a recovery of some amount that is based upon an avoided cost rate, that is a thing that is different in kind, I think not degree, from whether the rate is X or X plus 5 percent.

Mr. Walberg. It would still allow strong Federal oversight if we move that direction still further?

Mr. Danly. Yes. There would be Federal oversight of the utilities, as there already is, but there would be a different way that QFs would be functioning in the market in the States, based upon what the State legislature -- rather, the regulatory commission wants.

Mr. Walberg. Since PURPA was signed into law back in 1978, transmission access has become open to competitive generators, organized markets have been developed, and even bilateral markets. There is robust trading in those markets with independent generators.

Given that the electricity sector has changed drastically, do you believe that the implementation of PURPA has fully kept pace?

Mr. Danly. I agree with your point that there have been big changes, and, in fact, Congress recognized this in 2005, with the passage of EPACT 2005, where it allowed the States to get out from under -- or, rather, the utilities to get out from under the mandatory purchase obligation in the areas with organized markets.

I do not wish to opine on whether or not PURPA has kept pace. There are definitely changes going on in the market, and it is properly the role of Congress to decide how to respond to those changes.

Mr. Walberg. Okay. Well, let me then add to that or put it this way. Do you believe the current law represents the maturity of competitive markets, State renewable energy portfolio standards, investment tax credits, production tax credits, zero emission credits, reduced cost in renewables, and greater access to markets for smaller power producers?

Mr. Danly. Okay.

Mr. Walberg. Put it all in there.

Mr. Danly. Yes, yes.

So the answer is that there are a huge number of different policy vehicles available to the State governments and the Federal Government

to achieve policy goals, and PURPA is but one of those tools that is used to achieve a goal.

Some people say that it is abusively used and creates market distortions, and others say that it is a necessary requirement in order to promote this congressional mandate to encourage QFs being developed. That, as I say, is a question for your consideration.

Mr. Walberg. I appreciate that. I won't ask the followup questions then on that basis.

I am a believer in an all-of-the-above energy approach. I believe a diversified electricity portfolio is crucial.

With that being said, I fear PURPA is inhibiting my constituents from benefiting from the lowest-cost source of renewable electricity.

What FERC policies would need to be modified to ensure the best deal for customers in moving forward? Could I get -- I would get a smile.

Mr. Danly. I hate to say this, but I can't speak on behalf of the Commission or predict its actions. Right now, the Commission is reviewing the comments that came out of the tech conference, and we are actively working, as you are well aware, with members of the subcommittee here to talk about possible legislative reform.

Mr. Walberg. Well, thank you. I appreciate it.

My time has expired.

Mr. Olson. The gentleman yields back.

The chair now calls upon himself for 5 minutes.

First of all, thank you and welcome to all the witnesses.

As many of my colleagues mentioned, U.S. shale has made America number one in the world for natural gas, and that fact has allowed America to make our world safer, more secure, with cleaner air and cleaner water.

Mother Russia has used their natural gas dominance to force Eastern European nations to cower instead of seeking freedom. Our LNG exports have changed that forever.

As Chairman Shimkus said about Lithuania, I want to point out what has happened in Poland. Poland was part of the Iron Curtain. The first shots in World War II happened in Poland. Russia came in to counteract Germany. They were in that curtain until 1989 and beyond.

They are a member of NATO. They broke away from Russian dominance led by a worker from a shipyard, Lech Walesa. But they had an Achilles' heel: Mr. Putin still controlled their energy, their natural gas.

This past summer, guess what happened? A large LNG tanker, American tanker from Cheniere, in Sabine Pass, docked in Poland. It docked in Gdansk, Mr. Walesa's hometown. That simple act said: Good-bye, Mr. Putin. Hello Uncle Sam. And that same story is happening in other nations we care about, like Japan, South Korea, and India.

And I will be honest with you, too, this energy boom has been great for my home State of Texas.

My first question is for you, Secretary Winberg. Can you talk about the administration's views on energy exports as a national security matter? Is there coordination between DOE, Department of

State, Defense, USTR, Commerce, Ag, all the people involved in trade, are they working together to make sure this happens?

Because natural gas is not just fuel and power. Also big for agriculture. Their crops, their stock, their fertilizers come from natural gas.

And so are you guys looking with all those other guys to make sure we seize this opportunity? Any questions, any comments about that?

Mr. Winberg. Yes, we are. And I agree with your assessment of the value that U.S. energy has brought to our friends and allies around the world. We are working with other agencies, other departments to continue that growth in U.S. energy dominance and our ability to export to, again, our friends and allies.

Mr. Olson. So, again, just to confirm, you see this as an important part of our national security going forward, U.S. exports of oil and natural gas?

Mr. Winberg. And coal.

Mr. Olson. And coal, you betcha, you betcha.

The next one is to you, Mr. Danly. As you know, Texans like to brag we are big oil and gas, number one in America for over half a century. That has not changed. But what has changed the last 10 years? Wind power. Texas is number one in America, by far and away, for wind power. And we are concerned about the One-Mile Rule with wind power. As you said, FERC determines that wind production is at the same site based on the One-Mile Rule.

Can you talk about how FERC decided that standard and whether it

has been reconsidered over the years? Because people are concerned about that back home, one-mile standard towards wind production.

Mr. Danly. Certainly. So the one-mile standard was implemented by Federal Energy Regulatory Commission regulation and it is based upon a simple measurement of the distance from one of the facilities to another. There is nothing complicated about the specific site points of the location.

It can become complicated when there are multiple generating facilities in propinquity with each other, but it is basically a fairly straightforward locational distance requirement.

Wind and solar, which have larger footprints, are open to more difficult analysis, because you can say, at what point, at what part of the, let's say, the PV array do you measure the 1 mile from or how far apart do the individual turbines have to be. And so that is a consideration in an interest in reforming the One-Mile Rule.

Mr. Olson. Okay. I am out of time. One final question. It is very important for people back home. Are you both happy the Houston Astros are now the World Series champions, yes or no?

Mr. Winberg?

Mr. Winberg. Coming from Pittsburgh, that is a very difficult question to answer.

Mr. Danly. I am happy that you are happy.

Mr. Olson. Well played, running for office.

Again, we are done with the questions from members. I want to thank all the panelists. I apologize for the votes. This panel is

adjourned. We are going to recess for what, for a couple minutes, just to get the second panel set up. But thank you, thank you, thank you.

[Recess.]

Mr. Olson. Welcome to our second panel. And I apologize. Today, as you know, in D.C. is kind of a unique day, having some things happen on both sides of the Hill that are very important. And I just want to read you something from our whip: "Members are reminded to remain flexible, as additional votes may be possible."

So I just want to apologize before. We will try to get this done as quickly as possible. And I am so thankful you guys are here.

And I will start out with the first questions and stick to the 5-minute rule. Oh, yeah, opening statements. I apologize. No questions about the Houston Astros. We will just go from my left to my right.

And, Mr. Kavulla, you are recognized.

STATEMENTS OF CHARLIE RIEDL, EXECUTIVE DIRECTOR, CENTER FOR LIQUEFIED NATURAL GAS; TIMOTHY SPARKS, VICE PRESIDENT OF ELECTRIC GRID INTEGRATION, CMS ENERGY; KARL RABAGO, EXECUTIVE DIRECTOR, PACE ENERGY AND CLIMATE CENTER; TRAVIS KAVULLA, VICE CHAIRMAN, MONTANA PUBLIC SERVICE COMMISSION; AND PAUL CICIO, PRESIDENT, INDUSTRIAL ENERGY CONSUMERS OF AMERICA

#### STATEMENT OF TRAVIS KAVULLA

Mr. Kavulla. Thank you, Vice Chairman. And Vice Chairman Olson, Ranking Member Rush, it is great to be back before you today and in front of all the members who are here of the Subcommittee on Energy. Thank you for the opportunity.

My remarks today address only H.R. 4476, the PURPA Modernization Act of 2017.

I am the vice chairman of the Montana Public Service Commission. Today, I am also here on behalf of the National Association of Regulatory Utility Commissioners, or NARUC.

NARUC is a nonprofit organization founded in 1889, and our members are the public utility commissions in all 50 States, the District of Columbia, and U.S. territories. It is our members who are primarily responsible, as Congressman Walberg has already pointed out, for implementing PURPA.

I would like to thank him for his efforts in working on this

legislation as well as his staff. And on behalf of NARUC, I would like to express our support for it unreservedly.

PURPA is nearly four decades old at today's point, and it reflects the reality of another era when renewables were scarce, demand was booming, and the country looked for ways to diversify its energy portfolio and shield itself from overreliance on foreign sources of supply.

Today, the world has changed dramatically. The U.S. Energy Information Administration reports that nearly half of utility-scale capacity installed in 2017 came from renewable resources.

More than half of States, including my own, have their own renewable energy mandates, and even those which do not, such as Iowa, have shown substantial additions in renewable capacity, not because of PURPA, but because of the falling cost curve of renewable technologies, such as solar and wind.

A revision of PURPA, in other words, does not have to be anti-renewables, and this bill we do not consider to be anti-renewables.

To the degree that PURPA was enacted at a time when renewable technologies were not the norm, that norm has changed profoundly.

And there has been another significant transition too. Nearly all States today require power generation to be procured through competitive means. Even in States that do not have consumer choice or are restructured, monopoly utilities are nonetheless typically required to procure resources through competitive solicitations.

In short, other events have transpired that have accomplished PURPA's twin goals of advancing QF technologies and introducing competition into the sector, rendering PURPA itself largely needless.

PURPA mandates that power sales be at the utility's avoided cost, which on its face sounds unobjectionable. Conceptually, it means that consumers would pay no more or no less for PURPA resources than they would pay for non-PURPA alternatives.

However, FERC has long held that PURPA requires that States forecast the utility's avoided cost into the future for the purpose of offering QFs a long-term contract at administratively determined rates. This type of administrative pricing essentially requires States to guess at future market prices, allowing QFs to lock in rates that often substantially overstate the actual avoided cost.

This approach is fundamentally different when compared to procurements that use competitive mechanisms, like auctions or requests for proposals, to discover the least-cost resources.

And, indeed, courts have recently determined that competitive programs that attempt to implement PURPA are at odds legally with the law. Even California, which has done probably more than any other State to implement pro-renewable policies, has found that its PURPA program compliance is not in compliance with the law, according to a recent court ruling.

It is almost universally acknowledged that a competitive process is optimal, more optimal than administrative pricing, because generators there with a profit motive can vie against one another for

the business of the Nation's consumers, and that this is a best practice, compared with prices set by a State commission through a trial-like proceeding where the cost-reducing aspect of competition is absent.

Subsection 4B forthrightly acknowledges this and would allow competitive solicitations to substitute for administrative pricing regimes.

In addition to the flaws underlying the so-called avoided cost pricing, PURPA's mandatory purchase obligation is a poor match to the relatively flat and sometimes even declining customer demand for electricity seen in many parts of the United States.

In many parts of the country, new power plants of simply any kind may not be needed, a testament, in large part, to the increasing energy efficiency seen in the market, and yet unneeded power plants are in some places nevertheless being brought online, due to PURPA's mandatory purchase obligation.

In sum, PURPA's flawed approach to administrative pricing and its mandatory purchase obligation is harming consumers. Ironically, it is even at odds with the values of competition and conservation that are at the heart of PURPA itself.

Again, I would like to express NARUC's thanks to Congressman Walberg and the subcommittee members for considering this piece of legislation. Thank you.

[The prepared statement of Mr. Kavulla follows:]

\*\*\*\*\* INSERT 2-1 \*\*\*\*\*

RPTR ALLDRIDGE

EDTR CRYSTAL

[12:11 p.m.]

Mr. Olson. Thank you, Mr. Kavulla.

The chair now calls upon Mr. Sparks, who is the vice president of Electric Grid Integration with CMS Energy. Five minutes, sir.

**STATEMENT OF TIMOTHY SPARKS**

Mr. Sparks. Vice Chairman Olson, Ranking Member Rush, Representative Walberg, and distinguished members of the subcommittee, thank you for the opportunity to testify regarding H.R. 4476, the PURPA Modernization Act of 2017. My name is Tim Sparks, and I am vice president of Electric Grid Integration for Consumers Energy, referred to throughout this testimony as CE.

CE is the principal subsidiary of CMS Energy and is Michigan's largest energy provider, serving natural gas and electricity to 6.7 million of the State's 10 million residents. CE and parent company CMS Energy were recently honored as the top performer for Michigan companies by Newsweek in its annual green rankings.

Recent activities include helping our customers save over a billion dollars through energy efficiency, producing 10 percent of our customers' energy from renewables, reducing our waste use for electric generation by 17 percent, removing 1 million cubic yards of landfill

space in 2017, closing 7 of the company's 12 coal-fired power plants, opening two community solar power plants with a third on deck for 2018. We have learned that we can increase renewable generation and keep costs low for our customers.

Enacted 40 years ago, PURPA mandates that electric utilities purchase power from qualifying generating facilities at forecasted prices set by State public service commissions.

Now, four decades later, America's energy landscape looks nothing like it did in the 1970s, and it is therefore imperative that PURPA be modernized. H.R. 4476 takes a modest but important step in this direction.

First, the bill provides clarification to stop abuse of the One-Mile Rule. H.R. 4476 allows a challenge to be pursued should QFs not properly adhere to the criteria for calculating capacity and avoid gaming the system.

Second, the bill recognizes the QFs between 2.5 megawatts and 20 megawatts already have nondiscriminatory access to markets in those parts of the country with organized regional transmission organizations, or RTOs.

RTOs assure unbiased open access to the electric transmission system within their footprints. Many of the QFs within which Consumers Energy was obligated to contract over 30 years ago now have access to the transmission system as an independent power producer.

Without recognizing this access to the electric transmission system and electric market, Consumers Energy estimates its customers

will pay approximately \$18 million annually above market prices to QFs larger than 2.5 megawatts. This increased cost of our customers is formulated by the State-calculated avoided cost rate and applied to the QF's output.

Recently, the Michigan Public Service Commission announced a new avoided cost rate for Consumers Energy. While we appreciate their steadfastness in doing their due diligence as mandated by Federal law, the rate still remains well above market.

To illustrate this point, in 2017 Consumers Energy received 683 applications from new independent generators looking to interconnect to our electric system as potential PURPA QFs. The 5-year average prior to the new MPSC rate order was just shy of 200 applications per year.

The existing and potentially new PURPA contracts greater than 2.5 megawatts could cost our customers an estimated \$35 million annually above market over the next 5 years.

The third provision in the legislation recognizes the critical role State public service commissions play in keeping energy costs low for customers. The bill would allow greater flexibility to suspend the mandatory purchase obligation when additional electric capacity is not needed by the utility's customers.

I want to be clear on one thing: Consumers Energy is not advocating for less renewables in our energy mix. In fact, since 2005 we have increased our renewable portfolio from 3 percent to 10 percent and will meet Michigan's new renewable requirement of 15 percent by

the end of 2020. We have accomplished this through competitively bid renewable contracts and company-developed assets unaided by any expansion of higher cost PURPA QFs.

In closing, PURPA served its original intended purpose of expanding renewables. However, as shown, the law is simply outdated and our customers are bearing the price. Between 2006 and 2015, Consumers Energy customers paid 300 million above market prices for electricity from PURPA generators less than 20 megawatts. It is time for this law to be updated, which is why we strongly urge the passage of H.R. 4476.

I thank you for your time today.

[The prepared statement of Mr. Sparks follows:]

\*\*\*\*\* INSERT 3-1 \*\*\*\*\*

Mr. Olson. Thank you, Mr. Sparks.

The chair now calls upon Mr. Karl Rabago. Karl is the executive director of Pace Energy and Climate Center.

Sir, you have 5 minutes, opening statement.

#### **STATEMENT OF KARL RABAGO**

Mr. Rabago. Thank you, Chair Olson, Ranking Member Rush, members of the committee.

[Audio malfunction in hearing room.] against market abuse and improper discrimination.

My name is Karl Rabago. I am appearing actually in my capacity as a principal of Rabago Energy LLC. I have worked in the electricity sector for about 30 years, after spending 12 years as a cavalry and JAG officer in the United States Army. I have been a public utility commissioner in the State of Texas, a deputy assistant secretary at U.S. DOE, a utility executive, and a frequent expert witness in State proceedings.

I am also the executive director of the Pace Energy and Climate Center at Pace University in New York. I am not appearing before you in that capacity, but I do bring greetings from one of my office mates, former Congressman Richard Ottinger, who founded the center where I work and who codrafted and sponsored PURPA when he sat in this body 40 years ago.

The first thing I am going to do is describe some very serious

concerns with H.R. 4476. Second, I am going to share with you some general thoughts about PURPA.

H.R. 4476 should be rejected by this body in favor of a more measured and competition friendly approach. Section 2 would eliminate FERC's One-Mile Rule and instead mandates a rebuttable presumption, inviting utilities to use FERC litigation as an anticompetitive tool.

The result would make project financing more expensive or even impossible for private sector small power producers who, unlike monopoly utilities, cannot pass their litigation costs onto captive ratepayers.

Section 3 would create a presumption that all facilities 2.5 megawatts or greater in size have nondiscriminatory market access, but the record does not support that presumption. Section 3 would expose many small power producers to market access discrimination and would stifle competition.

Section 4 puts the utility fox in charge of the power sector hen house. Under the bill, the monopoly utility can almost unilaterally determine competitors' market opportunities. It would take the small power sector back 40 years to the days when utilities ran their markets like cartels and consumers paid the price.

In sum, PURPA modernization, as proposed in the bill, tilts the law so steeply in favor of monopoly utilities that it would frustrate Congress' long history of efforts to grow and improve competitive markets in the electricity sector.

Now just a few general issues.

PURPA is 40 years old, but we still do not have truly competitive and nondiscriminatory markets for qualifying small power producers and cogenerators. There are still many States where utilities, and even some of their regulators, perpetuate the very problems that led to PURPA. The real problem today is the need for modernization of a utility business model that is now more than 100 years old.

Second, PURPA is working well in many places. The Michigan Public Service Commission recently concluded a case involving Consumers Energy and all the utilities in Michigan, demonstrating that it was ready, willing, and able to address questions like how to use IRP processes to inform avoided cost calculations, how to account for and keep up with market changes, and how to chart a course for future improvements in avoided cost methodologies.

Third, there is a competitively significant difference between how utilities want to treat qualifying facilities and how they treat themselves. Utilities' shareholders would never build power plants based on a 2-year contract. They would never limit their earnings to marginal cost-driven market prices. They can't even keep their existing generators running with those prices today. And utilities would never wait until there was an energy or capacity shortage crisis to begin planning for or building a new power plant.

Fourth, market prices and competitive solicitations can inform but cannot replace the avoided cost determinations under PURPA. Market prices are the result of bidding strategies and a system designed

to generate lowest short run prices for energy and capacity, not build power plants. Competitive bids tell you the lowest bid anyone is willing to offer, but that does not tell you what anything is worth.

To establish full and fair avoided cost, more work does need to be done by State regulators. That work increasingly includes evaluating distribution level costs that are avoided by small generators, values that FERC rules and procedures may actually not fully assess.

So, finally -- well, I will just stop there and say thank you very much for the opportunity to address this committee, to address these important issues, and I look forward to standing for your questions.

[The prepared statement of Mr. Rabago follows:]

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Mr. Olson. Thank you, Mr. Rabago. And thank you also for your service to our Army. Please pass on to Chairman Shimkus, I just want to say congratulations, congratulations. In 16 years your Army has beaten my Navy twice, but two in a row, so well done.

Mr. Rabago. As a former professor at West Point, I have to tell you, it felt good this year. But that doesn't cover all of the problems.

Mr. Olson. Well said.

Our next witness is Paul Cicio. And Paul is the president of the Industrial Energy Consumers of America.

Welcome back. You have 5 minutes, Mr. Cicio.

**STATEMENT OF PAUL CICIO**

Mr. Cicio. Thank you, Vice Chairman Olson and Ranking Member Rush and subcommittee members. Thank you for this privilege.

Regarding H.R. 4476, the PURPA bill, we extend a thank you to Representative Walberg for exempting manufacturing cogeneration from the proposed changes to PURPA. The exemption recognizes that manufacturing companies are not in the business of generating and selling power and are not creating market problems.

However, it is very important that the bill also exempt manufacturing company PURPA facilities that are classified at FERC as small power producers. To not do so would negatively impact their ability to produce low-cost power thereby reducing competitiveness and jobs. Congress should not pull the rug out from underneath these capital investments that were made with PURPA regulatory assurances.

Also, manufacturing companies who have installed wind and solar units inside their fence line or intend to do so in the future for purposes of reducing electricity costs or reducing greenhouse gas emissions would be negatively impacted. We do not believe that that was the intent of Mr. Walberg. We look forward to working with him to exempt this class of QF facilities.

Regarding LNG exports and H.R. 4605, IECA is strongly opposed to this legislation. The bill presents Members of Congress with a decision: Either to vote for the bill and support the oil and gas

industry or oppose the bill and support your voters back home who risk higher natural gas and electricity costs long-term.

DOE's own LNG study that is entitled "Macroeconomic Impacts of Increased LNG Exports From the United States" illustrates that the net economic benefits of LNG exports almost exclusively serve the oil and gas industry and the public is impacted economically. The report concludes, quote, "Expansion of LNG exports has two major effects on income. It raises energy costs and, in the process, depresses both real wages and the return on capital for all other industries," that is "all other industries," unquote.

Raising energy costs, depressing real wages, and the reduction of the return on capital on U.S. industries, one would conclude that increasing LNG exports cannot possibly be in the public interest. These impacts are exactly what happened in Australia.

The bill is anti-consumer and removes the Natural Gas Act public interest test, which Congress put in place, which you put in place wisely.

Importantly, the legislation is actually not needed. Volumes already approved by the Department of Energy for nonfree trade and free trade agreement countries is equal to 71 percent of 2016 demand. That is 53 billion cubic feet a day.

The excessive volume approved by the Department of Energy is a legal issue. Exporting 71 percent of U.S. demand cannot possibly be in the public interest. It is a violation of the Natural Gas Act.

The DOE has failed to implement its regulatory responsibilities

under the Natural Gas Act. It has not acted to protect the U.S. economy and the consumers from excessive future LNG exports. Congress is responsible for assuring implementation of the Natural Gas Act and safeguarding the American public with affordable and reliable natural gas.

The Natural Gas Act is the law of the land. We urge the subcommittee to act to provide oversight of DOE-approved volumes and make remedy to protect the public interest. This is particularly important given that the 2017 AEO demand forecast indicates that 56 percent of the lower 48 natural gas resources would be consumed by 2050.

I look forward to your questions.

[The prepared statement of Mr. Cicio follows:]

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Mr. Upton. [Presiding.] Thank you.

Mr. Riedl.

#### STATEMENT OF CHARLIE RIEDL

Mr. Riedl. Good afternoon, Subcommittee Chairman Upton, Subcommittee Ranking Member Rush, and members of the committee. Thank you for the opportunity to testify today. My name is Charlie Riedl. I am the executive director of the Center for Liquefied Natural Gas.

CLNG represents the full LNG value chain, providing it with unique insights on the benefits LNG brings to the U.S. and global economies. CLNG operates within the Natural Gas Supply Association, a national trade association that has represented the U.S. natural gas industry for more than 50 years. This gives us a deep understanding of the entire U.S. natural gas supply portfolio.

I am pleased to be here today in support of Congressman Johnson's efforts to improve the liquefied natural gas permitting process and encourage members of the committee to support his legislation. Representative Johnson has been steadfast in spearheading legislative solutions to improve the permitting process for liquefied natural gas facilities.

And the time for action is now. As Representative Johnson has said himself, the window of opportunity for LNG exports will not remain open indefinitely. The U.S. is awash with affordable natural gas. And as other countries look to enjoy these same benefits the United

States enjoys, we are in a unique position to meet the growing demand globally.

However, there is a tight window to capture the market share, and providing regulatory and legislative certainty will help U.S. exporters claim our share of the global market. By allowing the United States to export natural gas after completing the FERC review process, as proposed in H.R. 4605, the Unlocking Our Domestic LNG Potential Act, a more certain and consistent regulatory environment would be created to unlock that future potential.

The length of time for DOE permitting has varied widely to date. The first six LNG projects had delayed an average of 2.6 to complete the permitting process. That period of review is unnecessarily long, and we can and should do better.

The LNG export opportunity, the very reason we are able to have this conversation today, is because of our vast supply of natural gas. It is the supply that is growing by the year that underpins the economic and environment benefits we can achieve with exports. Technological breakthroughs in the oil and natural gas industry have unleashed an energy renaissance, establishing the United States as the world's largest natural gas producer.

As I speak today, the U.S. natural gas resource has reached an all-time high. According to the U.S. Potential Gas Committee, these numbers continue to increase, up 68 percent since 2005, according to the U.S. EIA.

This alone is impressive, but consider this: During that same

time, our total natural gas resource estimates also continued to increase.

New domestic supplies of affordable natural gas have created competitive advantage for U.S. manufacturers, leading to greater investment in industry, investment in jobs, and creation of additional workforce. Experts forecast additional industrial investment of \$135 billion to build 59 new manufacturing projects and expand 11 additional projects in the next 5 years.

There are those who suggest we must choose between exports and our domestic manufacturing sector, but study after study tells us otherwise. According to a study from the Department of Energy, exports will not compete with our manufacturing sector for supply. And it is important to note that additional exports will be met by new production of natural gas.

What we are finding is that LNG exports can and will react to both the global marketplace and domestic demand. Less than 2 weeks ago, the Northeast was hit by the bomb cyclone, one of the coldest weather systems to reach our shores in years, and natural gas met record-setting levels of demand admirably. As the bomb cyclone moved along the East Coast, the import customers of the Cove Point facility in Maryland responded to price signals and delivered LNG gas to meet domestic consumer demand, demonstrating the flexibility of LNG at a time of increased demand.

In-depth research by DOE in 2015 found that exports are a net benefit to the U.S. economy. The DOE study determined that increased

production will drive investment to revitalize economically depressed regions of the U.S. and bring thousands of jobs to those areas. In fact, the September 2017 study by ICF showed that exports could generate more than 450,000 jobs and more than \$73 billion for the economy by 2035.

LNG exports do more than just provide jobs and investment. They offer an opportunity for also strengthening America's foreign policy interests abroad. LNG exports are already supporting our national security interests by strengthening the energy security and weakening those nations who look to use natural gas for political leverage.

So in conclusion, the promise of more LNG facilities in the United States brings a promise of a new era benefiting the U.S. economy and our global allies. Our enormous natural gas resource base ideally positions the U.S. to compete on a global level for the market share.

Free and open trade of U.S. LNG sends the important signal of unencumbered exports to the market. Artificially limiting LNG exports could undermine commitments to free and open markets as well as lead to complaints in international trade cases in the future.

In closing, we commend Representative Johnson for his leadership and steadfastness in championing LNG over the course of the last several years. His legislation would ensure that consistency in the review process without sacrificing the rigor and thoroughness of our review.

I thank you for your time today and look forward to answering your questions.

[The prepared statement of Mr. Riedl follows:]

\*\*\*\*\* INSERT 3-4 \*\*\*\*\*

Mr. Upton. Thank you. Thanks all for your testimony.

Since I was a little late coming back, we will start with Mr. Olson for questions.

Mr. Olson. I thank the chairman.

Again, welcome to our five panelists.

My first question is for you, Mr. Riedl.

As you heard in the first panel, I was pretty strong about LNG exports, that they are a national security matter for our country. We mentioned some countries like Lithuania, Poland, South Korea, India, Japan. Can you talk about some countries like that or other countries where our gas has been shipped, can be shipped, and about what upcoming projects might we send overseas, how can we expand that market?

Mr. Riedl. I can answer the question, and thank you for it.

So a couple of things. You touched on some of the countries that we are already sending gas to. To date, we have got one facility operating in the lower 48 that is exporting natural gas, a second that is going to come online very soon. That single project that is exporting right now out of the U.S., Sabine Pass Cheniere project, has exported to over 25 countries.

That is expected to continue to increase. And I think that, as you continue to see additional cargoes of LNG moving into Europe, as they start to see the reliability of U.S. LNG coming there, other countries are going to look to come online. Germany just opened an LNG import facility in the Port of Hamburg. So I would expect there is another opportunity for U.S. LNG to start being delivered to Germany.

But I think the other area that we didn't talk about is in South America, in Latin America. There are enormous opportunities there that we haven't necessarily fully exploited yet.

Mr. Olson. And do you agree, if we don't export our LNG and don't sell it to overseas, that market will be swamped by other countries, other entities, that we will drop the ball, let them control these nations or have influence with them that we should grab right now? Can we do that? And can you confirm that that is a benefit of exporting our liquefied natural gas?

Mr. Riedl. Absolutely. Yeah. The timeframe, as I said in my testimony, is limited for this opportunity for U.S. LNG. You think about the length of time that contracts are typically signed, 15- to 20-year length contracts. So right now countries are looking to purchase LNG, and if we don't capitalize on it, there are other exporting country that absolutely will.

Mr. Olson. On our trip with our Chairman Upton and Chairman Walden to Asia a couple years ago, we went to Japan, China, and South Korea. All those nations, especially Japan and South Korea, were just craving our exports of our oil and natural gas. They are tired of being strung out by Russia and OPEC. They want that freedom, that independence, and right now we can do that. Thank you.

My final question for you is I kind of want to make you -- I am not going to ask you guys do you like the Houston Astros being the world champs. But they have a player named Jose Altuve, MVP of the American League, a little man about 5 foot 5 tall, but a great power hitter.

I will making you Jose Altuve. I am going to throw a big, fat pitch right down the middle for you to knock out of the park. My question is, what are some of the benefits to a State like my State of Texas from increased exports of LNG?

Cream that pitch.

Mr. Riedl. Happy to.

There are a couple. One is obviously the job creation that comes along with it here domestically.

The other major opportunity that I would point to is the obvious, is the geopolitical impact. You mentioned some of those countries that are craving U.S. LNG.

The third is the environmental impact that we could have in helping other countries meet some of their environmental standards. And you look to a country like China, for instance, and Beijing. Last quarter they reported a 54 percent reduction in CO2 emissions. Greenpeace actually reported that. So you start to see the impact of switching from other fuels to natural gas and the environmental impacts that would happen there.

So those are the three that I would point to.

Mr. Olson. And obviously jobs back home. A little town called Beasley, Texas, there is a company there called Hudson Products. They make the compressor blades for these LNG bundled shares to be passed to the top of those trains you see that -- they probably sold 5,000 units, and more are coming. So that is big for Texas, small little towns thriving because of our export of liquefied natural gas.

My final is for you, Vice Chairman Kavulla.

We are in a very different world than we were when PURPA was passed a long time ago. And as you know, as I mentioned, my State, number one for wind power in America. In fact, it is the fastest growing job sector in our State. And there have been hours the past year where wind has supplied over 50 percent of our statewide power -- 50 percent.

If we make changes to PURPA, do you think it would change the investment decision to keep building wind turbines in a State like mine?

Mr. Kavulla. Vice Chairman Olson, no, I do not. I think renewables have been deployed throughout the country in response to price signals that clear through open markets and competitive solicitations issued by individual utilities and overseen by State commissions.

And if you look at my testimony, you will see that that is how the vast majority of renewables are being brought online; in contrast to renewables that come to State commissions and litigate in front of them asking for us to play crystal ball reader about what future market prices are.

Mr. Olson. Thank you.

My time has expired. I yield back.

Mr. Upton. Mr. Rush.

Mr. Rush. I want to thank you, Mr. Chairman.

Mr. Cicio, as you may have heard during the first panel, I asked both representatives from FERC and DOE if they had any concern with hastily approving LNG exports and impact that might have on domestic

natural gas consumers, manufacturing competitors, and American jobs.

Were you satisfied with their answers?

Mr. Cicio. Thank you for that question.

No, not at all. You know, we have examined all of the DOE studies that were due, that were completed, to justify the approval of nonfree trade agreement LNG exports. And we find them woefully inadequate to establish whether or not it is in the benefit of the country and satisfies the public interest.

Where we are today is that a total of around 53, 54 BCF a day of LNG exports for free trade and nonfree trade have been given final approval. That is 70 percent of U.S. demand in 2016. Shipping that volume cannot possibly be in the public interest.

So we are unsatisfied with that. We think that they have not fulfilled the Natural Gas Act and the regulatory responsibility to protect the consumer long-term.

This is not a short-term concern. This is a long-term. But we are making decisions today as to whether these terminals get approved and then will be built later on. So this is why we have to be careful not to overcommit legally on approving these applications today for the future demand that will happen.

Mr. Rush. Sir, I want to thank you.

Mr. Rabago, in your testimony you note that H.R. 4476 will grant utilities full control to determine the size of their competitors' market. Additionally, under this bill, a utility could refuse to purchase energy or capacity from a qualified small power facility if

the utility unilaterally determined that it has no need for energy or capacity in an IRP process.

Why is this problematic? And what impact might this provision have? Who would be responsible for oversight under this section of the bill as it is currently drafted?

Mr. Rabago. Thank you, Ranking Member Rush, for that question.

In order to answer it, we have to understand that there is IRPs and then there is IRPs. We have only 40 States in this country, as I believe, or roughly 40 States in this country that even have IRPs.

The level of regulatory oversight by State commissions of those IRPs varies dramatically, the time period that those IRPs are meant to address varies dramatically, and the authority of the regulators to actually dig into the details of these integrated resource plans varies dramatically.

In some places, basically the utility puts together their set of assumptions, their set of evaluations about resource needs, and then basically sends it over to the Commission. And the Commission may or may not even have authority to read it, much less question it or approve it.

So what we are really doing is saying that in a planning process, which isn't even focused on procurement under section 4(a) and (b) in the proposed bill, that a utility can use that to definitely exclude a competitive offer of energy without any real regulatory oversight.

As you heard earlier on, even FERC is unsure the extent to which they have any authority to look at the use of these IRP-type decisions

as a subterfuge for basically undermining competition. My concern, therefore, is that section 4(a) and (b) essentially puts the utility in the driver's seat and a lot more qualifying facilities will be denied access to markets as a result.

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

Mr. Upton. Mr. Johnson.

Mr. Johnson. Thank you, Mr. Chairman.

Mr. Riedl, thank you for your kind words. We have been working for a long time on the LNG issue and the ability to put America into the LNG markets globally.

You know, my district in eastern and southeastern Ohio that sit on top of the Utica and the Marcellus Shale is no stranger to the economic benefits of the shale energy boom and the vast amount of gas at our disposal.

With the Sabine Pass facility already exporting LNG and with more export facilities under construction, new job opportunities have simultaneously emerged in my district, a part of the country that has been impoverished over a number of years.

As pipeline infrastructure is laid, combined-cycle power plants are being built, while ethane crackers and ethane storage possibilities begin to take shape or are already under construction.

In many cases, local budgets of counties and townships have also been saved from oil and gas tax revenues that have increased their coffers. In fact, the top six shale counties in my district have collected more than \$43.7 million in real estate property taxes from

2010 to 2015. That is a lot of money for Appalachia. The median income within those counties has also risen over a similar period.

So, Mr. Riedl, the Appalachian region has clearly benefited from the use of natural gas in various ways. Do you expect this trend to continue as more export facilities come online?

Mr. Riedl. I think the short answer is, absolutely, we do. We would expect that, I think, if you look at sort of the number of jobs that the oil and gas industry already supports, 10.3 million jobs, if you look at where we are projected to go. We have, like I said, one facility operational, one set to become operational very soon, and another four that are under construction. I would expect that there would be somewhere in the neighborhood of 10 facilities operational in the next 5 to 7 years.

And if you look at sort of the amount of opportunity that those facilities represent, roughly 10 BCF a day projection of exports, it only is going to mean that there is more opportunity for those States that are producing the gas and need to then get that gas to the facilities to have opportunities for additional demand.

And as I mentioned in my testimony, it is all new production that is going to meet that demand from these LNG facilities, which means additional jobs, because there are going to be additional rigs running. And that ripple effect on down the line in the support opportunities, the jobs that would come out of that as well, is one that obviously becomes a multiplier pretty quickly.

Mr. Johnson. Okay. Well, thank you.

Facing competition from other countries, and we know there is competition out there, I understand, as you mentioned, that our window of opportunity to export LNG is limited.

What is a realistic outlook for global LNG demand over the next 20 years? And what does that outlook mean for companies wishing to build LNG export facilities here in the U.S.?

Mr. Riedl. I think that that answer, if you look at sort of the current demand today, roughly 35 BCF a day is the current demand, there are projections that would show that doubling in the next 20 years. And if you look at sort of where we are from a production of LNG globally, we are expected to start having a shortfall pretty quickly with coming demand in the mid-20s, depending upon which academic study you would look at.

But that means is the opportunity for U.S. natural gas, and LNG exports in particular, those long-term contracts that are going to start popping up here in the next few years, U.S. LNG is going to be competing on a global level for those contracts.

And so if we look at potential doubling of LNG demand in the next 20 years, our opportunity to look at some of the projects that are currently awaiting approval, we don't have a lot of time to wait before they are going to need to start making investment decisions to build those facilities to meet that coming demand.

Mr. Johnson. Do you think there is going to be any market pressure to allow only so many LNG facilities to be built?

Mr. Riedl. Sure. So if you look at the projections of where

total demand is, how contracts are already set up with other countries that are exporting LNG, yeah, EIA projects that out through 2050 roughly 12 BCF of LNG exports, which account for a much smaller percentage of our overall production of close to 40 BCF. So, absolutely, the market is going to limit how much export we will be able to capitalize on.

Mr. Johnson. Okay. One final question, and different experts give different opinions of this. But what is your realistic projection of what our U.S. natural gas supplies are? What do you think?

Mr. Riedl. Well, I think that it depends upon -- EIA is typically where I would point to as far as the potential opportunity, and a number that I continue to hear is somewhere in the neighborhood of 2 to 3 TCF.

Mr. Johnson. Okay.

Mr. Chairman. I yield back. Thank you.

Mr. Upton. Mr. Green.

Mr. Green. Thank you, Mr. Chairman.

And I don't know if you all were here earlier. I am kind of torn because I am from Texas. But I also have an area that has chemical plants, and we have seen just a huge number of expansion of those plants in east Harris County and along the Texas Gulf Coast.

My colleague from Texas knows that we have some ice cream in Texas, Blue Bell ice cream, and their slogan is that we eat all we can and we sell the rest.

That is where I come from. I want to be able to use that for relatively small, cheaper utilities, so we can bring manufacturing even more in. But also for, in our area, my manufacturing, refineries, and

chemical plants. And I don't mind selling the rest. I just want to make sure we can still continue the growth in our area.

Mr. Riedl, can you talk a little bit about how the LNG market is evolving from a potential market with facilities waiting for approval? And what are we learning now we are finally up and running some of those facilities?

Mr. Riedl. Great question and I appreciate the opportunity to share some thoughts on that.

I think the big thing that we continue to focus on is the long-term opportunity for LNG. And where we look at it here in the United States, as I was talking to Congressman Johnson's question, we are still talking about an excess of gas.

So we are meeting all of our needs for gas. EIA has projected that we are going to meet all of our needs for gas in the future as well. And we are going to have a surplus of gas.

And when you look at what EIA projects, dry gas production increasing year over year for the next few years, what that gives us is an opportunity, looking out to 2019, even, we are talking about 5.5 BCF a day of exports. And so when we talk about a total production number close to 80 BCF a day, we have an enormous opportunity to still capitalize and room to grow, as mentioned in the first panel.

Mr. Green. Okay. A question I have, and for are the entire panel, how big is our natural gas supply in the U.S., looking in that crystal ball in the future? Can we support both a huge domestic demand as coal plants continue to close and a large LNG export footprint?

Why don't we start at this end of the table. Do you think those projections where we can have our ice cream and eat it and sell it too?

Mr. Kavulla. You are putting me on the spot. But since PURPA is my MO, but I will say, in eastern Montana, western North Dakota, we have still had a big problem with flaring natural gas because we can't make productive use of it coming off of the oil patch.

Mr. Green. I will respond. I go through south Texas a lot, and there is still a lot of flaring in Eagle Ford that, if I was a royalty owner there, I would be upset about that. You are putting that product into the air that we could sell to somebody.

Mr. Sparks.

Mr. Sparks. Yeah. Part of my responsibility at Consumers Energy is fuel for generation, which includes natural gas. And everything that I have seen shows that there is an abundance of natural gas going forward. And I would say that probably the limiting thing more is pipeline capacity, to get it from the production to facilities, than it is the actual natural gas itself.

Mr. Green. And a comment too. I know West Virginia and Ohio have trouble getting those pipelines up to the Northeast where they really do need the natural gas.

Mr. Rabago. This is not my field of expertise, but living in the Northeast and looking at the reliability assessments that are produced by NERC for our region, I would share Mr. Sparks' statement that up there our issue is transport.

We don't make a lot of it directly there. We are concerned about

the pipes. And from Texas, you will remember once upon a time, when Mr. Wyatt realized that, at a certain price, it is cheaper to send lawyers down the pipeline than gas.

Mr. Green. Having known Oscar Wyatt for most of my life, I understand.

Mr. Cicio. The only independent source of how much natural resources we have is EIA. And we have used their AEO 2017 demand to 2050, 33 years away.

And when we look at domestic consumption, LNG exports that they have forecasted and pipeline exports that they have forecasted to Mexico on a net basis, so it is fair, it consumes 56 percent of all of our lower 48 natural gas technically recoverable resources. Technically recoverable does not mean that it is economically recoverable. So 56 percent.

If we put in that scenario, and it is in my testimony, that we can assume that all that has been approved is in that 33 years, you use up 80 percent of all the natural gas resources.

Mr. Green. Mr. Riedl.

Mr. Riedl. So I think that I would say, the short answer is, yes, we can. We are not necessarily supply constrained. We are demand constrained. That is, we are needing to find markets for this gas, which is why we are talking about LNG exports, which is why, 10 years ago, we were talking about imports and now talking about exports, because we found so much gas.

Mr. Green. Mr. Chairman, thank you.

I have a concern, no crystal ball, because when we put something in the law and take away oversight, I would be more concerned, not maybe a hard hand of oversight, but somebody minding the store to make sure that we are not raising our utility costs. Because I remember when the price of natural gas in the North Sea was cheaper than it was from Louisiana and Texas, and we lost chemical jobs over to Rotterdam. And I don't want to get to that point.

So that is why I think the bill we need to look at, to see somebody can go in, whether it be Department of Energy, and say this is a national security issue.

So, Mr. Chairman, I thank you for the time.

Mr. Upton. Mr. Flores.

Mr. Flores. Thank you, Mr. Chairman.

I want to assure my friend from Texas on the other side that, as a former member of the oil and gas business for years, we have got plenty to eat what we want and sell the rest for decades, if not centuries.

Let's talk about PURPA first, if we can.

Mr. Kavulla, you heard from your neighbor there at the table the impact that these PURPA contracts are having on their company. My local community is powered by a muni. And so we have smaller electricity utilities out there, munis, co-ops, and so forth.

What is the impact on those folks? They don't have a shareholder base, if you will, to spread the economic damage of these PURPA contracts. What happens to the munis and the co-ops?

Mr. Kavulla. In my view, the smaller the consumer base of the

utility, the greater the potential magnitude of erroneous price forecasting from the regulator would be. In the case of a municipality, they are likely, I assume in Texas, self-regulated by their city council. These are people who are probably even in less of a good position than I am to try to guess about the future market prices of energy for the purpose of establishing a rate that should be --

Mr. Flores. Well, kind of let's cut right to the chase. Who gets hurt?

Mr. Kavulla. The consumers.

Mr. Flores. Exactly. Yeah. There we go. Okay. And I am sorry. I wasn't trying to cut you off. I have just got some other things that we need to talk about.

Mr. Riedl, I appreciate your testimony today. And I have been fascinated by your neighbor at the table and some of the things he said. And as somebody who is an expert in this field, I do have a good feel for the supply of natural gas in this country and the huge impact it has had not only on our economy, but also geopolitically.

How do you respond to his claim that our energy abundance is a myth?

Mr. Riedl. It is a great question, and I appreciate the opportunity to talk a little bit about that.

I think that there are a couple of points that I would point to. One, if you look at -- Congressman Johnson stepped away -- but the State of Ohio alone in 2016 added 5 TCF of natural gas proven reserves.

So I think that there is some miscommunication here or mix-up here in what we are talking about with proved reserves and technically recoverable reserves. And how the market will actually dictate demand will dictate how we recover those reserves and at what price point we recover them.

So when we talk about a supply situation, it is driven by market demand. And so as market demand continues to increase, we are able to respond to that with supply. And we have seen it happen time and time again since the discovery of the shale gas in the early 2000s.

Mr. Flores. Well, the other thing that fascinating too is that technology continues to change the paradigm, and it is happening at an incredibly rapid rate. If you could have told me you would get oil and gas out of some things we are getting it out of today, if you had told me that 15 years ago, I would have thought you were smoking some bad dope. But it is really interesting. I guess I got to be careful of my record here, don't I?

I want to talk about the impact on jobs and economy a little bit. The oil and gas industry was one of the bright spots at a time when our labor markets were struggling. Particularly if you look at the 2008-2016 time period, there were some times during that time period, if we hadn't had the increase in oil and gas jobs, that that job growth would have been negative.

And so it has been a hugely positive factor for economic opportunity for what I would consider the working class Americans in this country, stable jobs, great incomes, great benefits.

And so I want to drill in on a more of a micro basis. How many jobs are typically created by the construction, first, and then the operation of an LNG facility?

Mr. Riedl. So construction, and if you look at the sort of timeframe of construction projects, one of the fastest moving projects that we have going right now is the Cove Point project, which is set to begin operation. And that is somewhere in the neighbor of 40 months of construction time.

And that creates somewhere between the neighborhood of 4,000 to 7,000 job at each one of these facilities. And so if you talk about we are building four more, you can pretty quickly do the math on how many construction jobs that that supports over a number of years.

And then if you think about sort of from an operational standpoint directly at a facility, it is not an enormous number of jobs, but we are still talking about adding real wages and real jobs to each one of those facilities in the neighborhood of a few thousand employees for each one of those facilities.

Mr. Flores. Okay. And those jobs are not paid in crumbs, right? They are good, well-paying jobs.

Mr. Riedl. No. The average salary is well over six figures in those jobs.

Mr. Flores. Okay. Well, six figures, right?

Mr. Riedl. Yes, sir.

Mr. Flores. Okay. Great.

Thank you, Mr. Chairman. I yield back.

Mr. Olson. [Presiding.] The gentleman yields back.

The chair now calls upon the pastor, Mr. Walberg from Michigan, for 5 minutes.

Mr. Walberg. Thank you, my son.

Mr. Olson. Amen.

Mr. Walberg. Go, Cubs.

Thank you to each of the panel for being here.

And in relationship to PURPA, our design is to make sure that the consumer is benefited. And we are certainly open, we are open to discussing better ways of doing things. But in the end, we want the consumer to be king and have utilities that can succeed in such a way to make the consumer king.

So I appreciate you being here today.

Mr. Sparks, before I get to my question, I want to thank you for being here. I am greatly appreciative of what CMS does in my district, being headquartered there, and all of the impact.

And the fact that -- you know, we have talked about a lot of things, and it is an absolute truth that you are ahead of the curve and ahead of the game of even what our State is mandating as far as renewables. And you are leading the way on those things. And it comes not because you are being forced, but it is a better way when it works. And so I appreciate that.

You gave your comments early on, and I am sure you have listened as other things have been said. So I want to give, before I ask my questions, an opportunity for you to comment on any things that you

heard and would like to add to the mix here.

Mr. Sparks. Yeah. Thank you, Mr. Walberg, for that.

Two things I would say. One is, at least for Michigan anyway, Michigan has a very robust IRP process. We have been going through stakeholder meetings over the last year, we are now having public meetings, to talk about the whole process of integrated resource planning.

All of the utilities in Michigan have to file integrated resource plans by, I believe, it is April of 2019. Our company will be filing one before June of 2018.

So I would just say that lots of opportunity for all stakeholders to participate in that process in Michigan.

The other thing I think I would just mention is that I believe that H.R. 4476 actually promotes competition. I don't understand how forcing customers to buy from renewable resources that are priced higher than other renewable opportunities, or other generation resources for that matter, could ever promote competition. So by lowering that threshold, in my view, it actually promotes competition.

Mr. Walberg. Well, add to that a bit. One of my questions was going to be, is it fair to say that Consumers Energy is being forced to purchase power they don't need at above-market prices?

Mr. Sparks. Absolutely. Our company right now has 650 megawatts of wind resources that we either own or we contract for. We just brought online 44 megawatts of wind this past December, \$45 per megawatt hour. Another third party that we contract with brought

on 100 megawatts of wind this past November, less than \$45 per megawatt hour that our customers are paying.

So when we look at the avoided costs that have been established for Consumers Energy for renewables, it is much higher than that, sometimes twice the cost of what I just quoted. And we have plans to put more megawatts from wind on our system, again in that mid-\$40 range.

Mr. Walberg. Drilling down a little bit further. If H.R. 4476 were signed into law, would it save your customers money? And if not, what will they overpay?

Mr. Sparks. It absolutely would save our customers money. Dollar for dollar, our power supply costs are a direct pass-through to our customers. So any dollar that we can save in power supply costs will go directly to our customers.

In my opening remarks, I commented about customers paying about \$35 million, we predict, more than what they otherwise would pay from other options from all of the PURPA contracts that we have been asked to sign. That was as of last week when I was preparing my materials. I looked yesterday. We are up to about \$53 million now.

Mr. Walberg. Okay.

Finally, I understand Consumers is taking steps to expand your renewable generation portfolio, as you mentioned. This is an effort I applaud, but want to know if PURPA is actually hindering consumers from building more renewable generation at lower cost to your customers.

Mr. Sparks. It certainly could in the future if enough PURPA

generators come onto our system. We obviously have to look at that supply-demand balance. And we wouldn't want to have more generation available than what our constituents, our customers, would consume. So it could affect that, yes.

Mr. Walberg. Mr. Chairman, without objection, I would like to submit letters from 17 different entities in support of this for the record.

Mr. Olson. Without objection, so ordered.

[The information follows:]

\*\*\*\*\* COMMITTEE INSERT \*\*\*\*\*

Mr. Walberg. Thank you. I yield back.

Mr. Olson. The gentleman yields back.

It appears that we have no further members seeking to ask some questions. So on behalf of the entire subcommittee, thank you, thank you, thank you for your patience.

I will remind you all members have 10 days to submit questions for the record, legislative days, and our guests have 10 days to respond to those questions after receiving them.

Before we close, I would like to enter 21 letters for the record.

A letter from Alliant Energy. A letter from American Public Power Association. A letter from the Arizona Power Service. A letter from the Basin Electric Power. A letter from Berkshire Hathaway Energy. A letter from Consumers Energy. A letter from Covanta. A letter from DTE Energy. A letter from Duke Energy. A letter from Edison Electric Institute. A letter from Electricity Consumers Resource Council.

Whoa, boy.

A letter from the Environmental Law Policy Center, Natural Resources Defense Council, Solar Energy Industries Association, Southern Environmental Law Center, and Vote Solar, all collectively.

A letter from the Idaho Power Corporation. A letter from the Independent Power Producers Coalition of Michigan. A letter from the Industrial Energy Consumers of America. A letter from ITC Holdings Cooperation. A letter from National Association of Regulatory Utility Commissioners. A letter from the National Rural Electric Cooperative

Association. A letter from OG Electrical Corporation. A letter from  
Portland General Electric Company. A letter from Xcel Energy.

Without objection, so ordered.

[The information follows:]

\*\*\*\*\* COMMITTEE INSERT \*\*\*\*\*

Mr. Upton. Again, thank you, thank you. This hearing is adjourned.

[Whereupon, at 1:04 p.m., the subcommittee was adjourned.]