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        POWERING AMERICA: REEVALUATING PURPA'S
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        OBJECTIVES AND ITS EFFECTS ON TODAY'S
        CONSUMERS
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        WEDNESDAY, SEPTEMBER 6, 2017
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        House of Representatives
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        Subcommittee on Energy
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        Committee on Energy and Commerce
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        Washington, D.C.
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              The subcommittee met, pursuant to call, at 10:00 a.m.,
        in Room 2123 Rayburn House Office Building, Hon. Fred Upton
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         [chairman of the subcommittee] presiding.
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              Members present: Representatives Upton, Barton, Shimkus,
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        Latta, Harper, McKinley, Kinzinger, Griffith, Johnson, Long,
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        Bucshon, Flores, Mullin, Hudson, Walberg, Walden (ex
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officio), Rush, McNerney, Peters, Green, Castor, Sarbanes, 1 2 Tonko, Loebsack, Schrader, Kennedy, and Pallone (ex officio). 3 Staff present: Ray Baum, Staff Director; Elena Brennan, Legislative Clerk, Energy/Environment; Jerry Couri, Chief 4 5 Environmental Advisor; Zachary Dareshori, Staff Assistant; 6 Wyatt Ellertson, Research Associate, Energy/Environment; Adam 7 Fromm, Director of Outreach and Coalitions; Tom Hassenboehler, Chief Counsel, Energy/Environment; Jordan 8 Haverly, Policy Coordinator, Environment; A.T. Johnston, 9 Senior Policy Advisor, Energy; Ben Lieberman, Senior Counsel, 10 11 Energy; Mary Martin, Deputy Chief Counsel, Energy & 12 Environment; Alex Miller, Video Production Aide and Press 13 Assistant; Brandon Mooney, Deputy Chief Energy Advisor; Mark 14 Ratner, Policy Coordinator; Annelise Rickert, Counsel, 15 Energy; Dan Schneider, Press Secretary; Madeline Vey, Policy 16 Coordinator, Digital Commerce & Consumer Protection; Jeff 17 Carroll, Minority Staff Director; Jean Fruci, Minority Energy and Environment Policy Advisor; Rick Kessler, Minority Senior 18 Advisor and Staff Director, Energy and Environment; Alexander 19 Ratner, Minority Policy Analyst; Andrew Souvall, Minority 20 21 Director of Communications, Outreach and Member Services; 22 Tuley Wright, Minority Energy and Environment Policy Advisor;

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and C.J. Young, Minority Press Secretary.

1 Mr. Upton. Good morning, everyone. 2 Today, we are going to continue our Powering America 3 series by examining the statute that has played an important role in supporting certain electric generating resources over 4 5 the past 40 years. 6 Under the law, PURPA provides preferential rate and 7 regulatory treatment to resources known as qualifying facilities, or better known as QFs. 8 These resources include co-generation facilities such as 9 industrial plants and certain small power producers that use 10 11 renewable resources such as wind and solar. 12 And today's panel witnesses include folks representing 13 various types of QFs including solar developers, an 14 industrial paper manufacturer, and a municipal waste facility 15 in Grand Rapids, Michigan, that can generate 18 megawatts of electricity by burning solid waste. 16 17 Under PURPA, the FERC is tasked with implementing the law in coordination with state regulatory authorities. This 18 framework of cooperative federalism allows for each state to 19 enact and administer its own program within limits 20 21 established by the federal standards. 22 And, not surprisingly, since each state has different **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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22	NEAL R. GROSS
22	Last year alone, capacity additions from utility scale
21	experienced exponential growth in recent years.
20	sources of energy, particularly wind and solar, have
19	Additionally, it is important to note that renewable
18	electricity is generated, transmitted, and used by consumers.
17	technologies. All of these factors have changed how
16	transmission policies, and the influence of new lower cost
15	RTO and bilateral regions, the advent of open access
14	including the development of the electricity markets in the
13	The evolution of the industry has occurred in many ways
12	week.
11	underscored by the DOE staff report that was released last
10	occurred in the electricity industry, a point that is
9	During the intervening decades, tremendous changes have
8	since 1978.
7	to PURPA. However, the law has largely remained unchanged
6	Energy Policy Act of '05 did make some modest revisions
5	perspectives as a state regulator.
4	from Idaho for appearing here today to share her thoughts and
3	On that point, I would like to welcome the commissioner
2	conditions of each state's QF policies, indeed, vary.
1	energy needs, resources, and policy objectives, the terms and

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renewable resources surpassed the net additions of all other 1 2 fuel sources combined. 3 There is no question that renewable resources now play a significant role in the nation's fuel mix and are a major 4 contributor in decreasing U.S. greenhouse gas emissions. 5 6 Considering these changed circumstances, this 7 subcommittee must review whether revisions to PURPA are necessary or appropriate. This examination will continue the 8 arguments both in support and opposition to making reforms to 9 10 PURPA. 11 Among them, certain utilities contend that the PURPA 12 provision requiring utilities to purchase QF energy is 13 outdated and should be modified or repealed. 14 Conversely, QFs argue that PURPA's mandatory purchase 15 obligation remains a necessary backstop to support renewable energy in parts of the country that are not receptive to such 16 17 development. 18 This oversight hearing will be the first step in reevaluating whether the intent and purpose of PURPA is still 19 being met or if it has already been fulfilled. 20 21 Additionally, today we are going to be looking at what 22 effect the law is having on consumers and repairs in 2017 and **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1	beyond.
2	With that, I want to thank the panel for being here and
3	I will yield to the ranking member of the full committee, Mr.
4	Pallone, for an opening statement.
5	Mr. Pallone. What happened to the green? They got rid
6	of it.
7	[Laughter.]
8	I am sorry.
9	Mr. Upton. Maize and blue.
10	Mr. Pallone. Oh, okay.
11	Mr. Upton. The block M will be over that.
12	Mr. Pallone. All right.
13	Mr. Chairman, a lot has changed in the electricity
14	sector since Congress passed Section 210 of the Public
15	Utilities Regulatory Policies Act in 1978 and more changes
16	are still to come.
17	However, a number of the goals of PURPA are still valid
18	today, in particular, the goals of increasing competition,
19	encouraging development and deployment of more clean and
20	efficient electricity generation, and ensuring equitable
21	affordable rates for consumers are still important.
22	PURPA has been successful in encouraging competition,
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1 fostering electricity market development, and in bringing new 2 generation and efficiency technologies onto the grid, and as 3 a result, we now have a more competitive and diversified 4 electricity sector.

5 Of course, PURPA alone is not the only driver of change 6 in the electricity sector. State policies on renewable 7 energy and energy efficiency expanded wholesale markets, 8 connected technological change, growth of natural gas 9 supplies, and changes in consumer expectations and demand are 10 all reshaping this sector.

And I expect we will hear a variety of opinions today about the need for further PURPA reform and the direction that any administrative or legislative reform should take.

14 The Federal Energy Regulatory Commission recently 15 examined these issues at a technical conference and I believe 16 a number of our witnesses participated and even a few members 17 weighed in on that conference, included myself and Ranking 18 Member Rush.

And I realize that some of our members believe that the statute needs to be revised, particularly on issues like estimation of avoided costs, the mandatory purchase requirement, and FERC's definition of a qualifying facility

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1 as it relates to the distance between facilities.

2 However, the Energy Policy Act of 2005 as passed by this 3 committee under Chairman Barton and signed into law by President Bush provided significant changes to Section 210. 4 Those changes allow utilities in competitive areas to 5 6 avoid the mandatory purchase obligations. The law also 7 provided greater discretion for state utility commissions to establish methods for determining avoided costs and the 8 duration of power purchase agreements. 9

10 This change allowed states even greater flexibility to 11 address their individual situations. For example, the state 12 of Idaho, which we will hear from today, made radical changes 13 to its standard contract and avoided cost calculation.

14 These are changes that I do not support but they 15 reinforce the fact that many different outcomes are possible 16 under the current PURPA structure.

We will likely hear about the fact that some markets today are saturated with electricity generation. This is due principally or primarily to reduce costs of new generation technologies and the fact that electricity demand is flat in many markets.

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There is also a real issue in some regions today where

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1 competition now exists among different generation assets that 2 are all trying to earn sufficient revenue within markets 3 where rates are stable or falling due to flat demand. 4 In some areas I suspect there is a reluctance to add new, more efficient cleaner energy resources into areas where 5 6 existing fossil and nuclear generation assets are struggling 7 financially. But when Congress made the decision to encourage more 8 competition in the development of wholesale markets, there 9 was bound to be winners and losers in those markets to the 10 11 larger benefit of the consumer. 12 Consumer preferences, state policies, technological change, and economic trends are favoring renewable resources 13 14 over traditional fossil and nuclear generation, and this 15 transition is bringing us a clean and more efficient grid and these are positive developments and I would not want to see 16 17 this committee reversing course on competitive market development without a much more serious and longer 18 consideration of the impacts of such a move away from 19

FERC has authority to make some changes in the
implementation of PURPA. The recent technical conference

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competition.

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1	provided the commission with information to evaluate the
2	effectiveness of its implementation and enforcement of PURPA.
3	So we have an excellent panel of witnesses here this
J	So we have an excertenc paner of withesses here this
4	morning. I look forward to hearing their testimony. Thank
5	you again, Mr. Chairman, for holding this important hearing
6	and for working with us on this series of bipartisan hearings
7	on the current status of the electricity sector.
8	And I do I did like the green better. Sorry. Well,
9	actually, you liked the green better.
10	Mr. Upton. So Oregon green is gone.
11	[Laughter.]
12	The chair would recognize the
13	Mr. Pallone. Just trying to go blue here.
14	Mr. Upton. The chairman it was a nice win over
15	Florida. Sorry they are not here today. The chair would
16	recognize the chair of the full committee, gentleman from
17	Oregon, Mr. Walden.
18	The Chairman. I thank the gentleman.
19	Nearly 40 years ago, as we have all heard, Congress
20	passed the Public Utility Regulatory Public Utilities
21	Regulatory Policies Act, commonly known as PURPA.
22	As many of you are aware, this law was passed during the
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1 time when the country was overly dependent on foreign 2 supplies of energy, resulting in national energy shortages 3 and economic instability.

And in response to these challenging circumstances,
Congress passed PURPA with the goal of promoting energy
conservation, increasing domestic energy supplies.

Now that PURPA has been in place for multiple decades,
we can see how it has helped transform the U.S. energy
sector, bolstered renewable energy, and reduced greenhouse
gas emissions.

Gone are the days of Americans relying heavily on overseas sources of energy and unstable global markets to meet energy needs. Instead, the country now has access to many forms of abundant domestic energy which has been spurred by innovative technologies and competitive energy markets.

Now, in passing PURPA, Congress took the first steps toward competition within the electricity markets by allowing electricity generation to be independent of regulated monopolies for the first time.

20 Since then, Congress and FERC have continued to take 21 actions to increase competition, resulting in tremendous 22 benefits for consumers across the country.

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We on the committee want to continue down the same path of increased competition and innovation. Our aim is to strengthen energy markets and encourage innovation throughout the electricity sector, giving consumers more choice and greater control over their energy decisions while also benefitting the environment.

Today's hearing gives us the opportunity to look at
PURPA with fresh eyes and evaluate what effect it is having
on evolving electricity markets and the modern-day consumer.

10 Given the fact that PURPA was written nearly 40 years 11 ago and the U.S. electricity system is undergoing significant 12 transformation, now is the time for the committee to review 13 PURPA and its associated impacts.

14 This review includes discussing the original intent of 15 specific PURPA provisions and determining if these provisions 16 are still working successfully today.

For example, in today's hearing we will review the requirements connected to the mandatory purchase obligation, the effectiveness of the one-mile rule when designating qualifying facilities and the various methods states are using to calculate avoided costs.

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The committee understands that many stakeholders in the

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1 electricity sector are closely following potential PURPA
2 reforms.

In fact, I know this is true for my constituents in eastern Oregon where we have more than 100 qualifying facilities operating as a direct result of PURPA.

6 So in addressing this topic, we want to make sure that 7 all stakeholders, all of them, have an opportunity to be 8 heard, which is why we are holding the hearing today and why 9 we will continue to engage proactively with all stakeholders, 10 moving forward.

In all that we do on the Energy and Commerce Committee, we strive to focus on the needs and interests of American consumers. When we are successful in this pursuit, I am confident that everything else will find its proper place. With that, I look forward to the remainder of the hearing and better understanding how PURPA is affecting consumers across the country.

And with apologies, I know we had a couple of hearings going on so I've got to go to another one and be back and forth. But thank you for your testimony. It is most enlightening and helpful in our work, and I yield back. Mr. Upton. And we have a bill on the floor.

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1 The Chairman. And we have a bill on the floor and a 2 Korean briefing and oh, it is -- lots going on. 3 Mr. Upton. Gentleman's time is expired. I know Mr. Rush is running a little bit -- any on the minority side 4 wishing at this time? Seeing none, we will go right then to 5 6 the testimony by our witnesses. 7 We are joined first by Mr. Frank Prager, vice president of Policy and Federal Affairs for Xcel Energy. Welcome. 8 Your testimony is -- all of your testimonies are made part of 9 the record and if you would take no more than five minutes to 10 give a summary of that, that would be great and start with 11 12 you. 13

Thank you. Welcome.

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1 STATEMENTS OF FRANK PRAGER, VICE PRESIDENT, POLICY AND 2 FEDERAL AFFAIRS, XCEL ENERGY; TODD GLASS, COUNSEL, SOLAR 3 ENERGY INDUSTRIES ASSOCIATION; KRISTINE RAPER, COMMISSIONER, 4 IDAHO PUBLIC UTILITIES COMMISSION; STEPHEN THOMAS, SENIOR 5 MANAGER, ENERGY CONTRACTS, DOMTAR PAPER COMPANY; TERRY KOUBA, 6 VICE PRESIDENT, IOWA OPERATIONS, ALLIANT ENERGY; DARWIN BAAS, 7 DEPARTMENT OF PUBLIC WORKS FOR KENT COUNTY, MICHIGAN 8 9 STATEMENT OF MR. PRAGER 10 Mr. Prager. Thank you very much, Mr. Chairman. 11 Members of the committee, my name is Frank Prager. I am 12 vice president of policy and federal affairs at Xcel Energy. 13 I am pleased to be here today to talk to you about PURPA and 14 PURPA reform. 15 Xcel Energy is a public utility holding company headquartered in Minneapolis, Minnesota. We serve parts of 16 17 eight Western and Midwestern states including Denver, where I 18 am from. We are the nation's number-one utility provider of wind 19 energy. We have been that -- held that distinction for a 20 21 dozen years. Xcel Energy currently has over 6,700 megawatts 22 of wind on its system and is currently in the process of **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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adding an additional 3,400 megawatts of wind.

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Renewable energy is a big part of our energy portfolio. We are also in the process of decarbonizing our electric grid. Xcel Energy has already reduced its CO2 emissions by 30 percent from 2005 levels and are on a path, if we continue to see technological advancement in the renewable energy area, to achieve a 60 percent reduction by 2030.

8 Our customers like renewable energy. They like the fact 9 that we are decarbonizing our electric grid. But they love 10 the fact that we are able to do it at a low price.

We actually are now in the process of implementing a strategy we call steel for fuel under which we are actually reducing our carbon dioxide emissions while at the same time reducing our customers' energy rates. And as I say, our customers are very fond of that strategy.

As strong proponents of cost-effective renewable energy, Xcel Energy believes it is time for Congress to reform the outdated PURPA statute. As described in my written testimony, the energy market fundamentals that led to the adoption of PURPA no longer exist.

21 Today, we live in an era of relative energy abundance 22 rather than the energy crisis that existed at the time PURPA

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1 was first adopted. Customer energy use is flat. 2 Renewable energy is no longer a niche technology but a 3 growing part of our energy portfolio. Robust wholesale 4 energy markets and least-cost resource planning have 5 facilitated market-based acquisition of energy. 6 PURPA was designed to address energy challenges of the 7 1970s that no longer exist and are inconsistent with the modern energy marketplace. 8 Under PURPA's must take provisions, QFs can displace 9 energy from existing more efficient power plants, thereby 10 11 raising costs for our customers. 12 QFs can force utilities to take power outside of the 13 state utility planning processes. Those are the processes 14 that states use to assure a reliable and cost-effective 15 energy system. 16 For example, in Colorado, a QF developer informed Xcel 17 Energy that it had been -- it had intended to develop 19 separate QF facilities, each of 80 megawatts. 18 Although Colorado PUC regulations are clear that those 19 20 QFs must participate in the resource planning process, this 21 QF developer declined to do so. 22 It demanded that we enter into a long-term contract for

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its contemplated 1,520 megawatts of QF energy. Litigation
 with that developer is ongoing.

However, its claims demonstrate one of the key problems A associated with PURPA. QFs can operate outside state resource planning and thus force electricity consumers to pay for energy they do not need.

PURPA can also interfere with transmission planning.
That same QF developer has proposed to put 480 megawatts,
almost a half a gigawatt, of its power in a remote location
far from our load centers in an area where we do not have
adequate transmission capacity and an area where the existing
transmission capacity is subscribed by existing solar
facilities that are under contract to Xcel Energy.

14 If this QF is successful in putting its power to Xcel 15 Energy, we will be required to spend millions of dollars in 16 transmission of grades and will have to work in order to make 17 sure that our existing solar facilities have access to the 18 electricity marketplace.

19 The other problem with PURPA, which is one the chairman 20 identified, is the ability of some QFs to game the PURPA 21 regulations in particular with regard to the one-mile rule. 22 Under its terms, the QFs are limited to 80 megawatts and

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1 PURPA -- and FERC has implemented that 80 megawatt limit 2 through the one-mile which requires the two QFs be separated 3 by at least a mile. 4 Some -- unfortunately, FERC has allowed some developers 5 to circumvent this rule. In our Texas service territory, 6 FERC found two separate segments of a larger wind project --7 a larger wind project with a single owner and a single interconnection -- literally, one project to be -- considered 8 to be two separate QF projects because the developer had made 9 certain that no two wind turbines from that project were 10 11 located within a mile of one another. 12 Thus, a project that greatly exceeded PURPA's 80 13 megawatt limit was able to force Xcel Energy to buy power 14 from it at the avoided cost rate. 15 We encourage Congress to consider legislation that would help address these and other problems with PURPA. Even 16 17 without PURPA, the renewable energy market has never been stronger and QFs would have the opportunity to compete for a 18 growing piece of the renewable energy pie. 19 20 Thank you again. I would be happy to answer any 21 questions that you have. 22 [The prepared statement of Mr. Prager follows:] **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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Mr. Upton. Thank you.

Energy Industries Association. Welcome.

We are joined next by Todd Glass, counsel to the Solar

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1 STATEMENT OF MR. GLASS

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Mr. Glass. Thank you.

Mr. Chairman, distinguished members of the subcommittee,
good morning. My name is Todd Glass. I am an energy lawyer
who represents developers and financiers of independent solar
project -- solar-powered projects and the solar industry in
energy regulatory matters.

9 I am delighted to appear on behalf of the Solar Energy 10 Industries Association with regard to PURPA, its original 11 objectives and its relevance to customers today.

SEIA is the national trade organization for the solar industry in the United States, representing more than a thousand organizations that promote manufacture, install, and support the development of solar energy around the United States.

SEIA seeks to expand markets, remove market barriers,
strengthen the industry and educate the public on the
benefits of solar energy.

20 PURPA's original objectives were to do two primary 21 things -- to increase the diversity of supply by type fuel 22 source, size, and ownership, to strengthen national energy

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security in the nation's electric supply.

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Fuel diversity remains essential to our national energy security and PURPA continues to provide the means to ensure the increased diversity of supply, particularly with regard to fuel-less generation resources.

6 PURPA's second major contribution was to create 7 competition by -- that forces prices down, that benefits 8 consumers by eliminating utilities' anti-competitive actions 9 against competitive generation.

10 Independent generation puts downward competitive 11 pressure on prices and benefits consumers by reducing the 12 cost of electricity. As new technology such as solar are 13 deployed, the price of delivering power to consumers will 14 continue to decrease.

15 Those two objectives have yet to be fully achieved.
16 PURPA remains an essential federal legislation underpinning
17 both diversity as well as competition in the electric power
18 industry.

19 The U.S. solar industry can compete. As outlined in my 20 testimony, solar energy has experienced a rapid decline in 21 cost over the past decade to become a true economic 22 alternative and competitor to traditionally-owned utility

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1 generation.

2 Solar prices have become competitive with wind and 3 natural gas fuel generation. Solar installations, however, 4 are principally owned by independent power producers who, 5 through innovation and persistence, have been able to 6 withstand the competitive pressures today to build and 7 finance their project.

8 With only a fraction of those installations actually 9 contracted for under PURPA's must purchase obligation, PURPA 10 as a whole remains an essential back shield -- a backstop 11 against anti-competitive conduct for all independent power 12 and a backstop for financing these independent power 13 projects.

Electric utilities in the United States are among the most enduring long-lived monopolies in the United States. As Congress recognized in 1935, electric utilities must be regulated in order to protect the public interest.

In 1978, Congress created PURPA. PURPA is not an environmental law. Rather, its provisions provide for energy conservation in a unique federalism system that eliminates discrimination against co-generators and small power producers, which you correctly called QFs, by requiring

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26 1 interconnection, wielding of their power, and purchasing 2 their power at a price no greater than the incremental cost 3 of buying that electric power from alternative sources. 4 With its passage, PURPA became the bedrock federal law 5 ensuring competition in wholesale power markets. Soon after 6 FERC promulgated the regulations, utilities started fighting 7 PURPA and its mandates. Indeed, 40 years later, they are still fighting its 8 mandates. Why? Utilities would simply prefer to buy 9 generation -- they prefer not to have to buy generation from 10 11 small diverse UFs that don't fit within -- neatly within 12 their plans. 13 They would rather build and rate base larger generation 14 facilities and maintain a controlled vertically-integrated 15 monopoly or buy through power purchase agreements through our 16 RFPs. 17 They have never liked PURPA and they still don't like PURPA today. Solar power PURPA projects are not a real 18 19 problem. 20 As shown in my testimony, in 44 states solar energy in 21 the last year totaled less than 5 percent of the total energy

used and in a vast majority of states it is less than 1

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1 percent.

2 Of that amount of total installed solar capacity, only 3 20 percent is actually based upon a PURPA must-purchase 4 obligation.

5 Due to land usage and power density, solar power is not 6 an industry that is abusing FERC's one-mile rule. 7 Notwithstanding the penetration, our industry is putting 8 competitive pressures on energy prices and benefitting those 9 consumers by forcing the utilities to look at lower cost 10 power.

So PURPA is about diversity -- fuel size, type, and ownership and competition. U.S. solar industry is here to compete, to create jobs, and investment and create tax base in both urban and rural America to make the -- and to make the electric grid more diverse and secure.

SEIA strongly encourages Congress to continue supporting competition by ensuring independent generators like solar can compete.

19 Thank you, and I look forward to your questions.20 [The prepared statement of Mr. Glass follows:]

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Mr. Upton. We will next hear from Kristine Raper, commissioner for the Idaho Public Utilities Commission.

1 STATEMENT OF MS. RAPER

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3 Thank you, Chairman Upton. Ms. Raper. 4 Distinguished representatives, my name is Kristine I am a commissioner with the Idaho Public Utilities 5 Raper. 6 Commission and I want to thank you for the opportunity to 7 come and participate in this panel today and I look forward to any questions that will be asked after the presentations. 8 A couple of initial matters that I feel like I need to 9 address, issues that often get conflated within this PURPA 10 discussion but are truly separate and distinct. 11 12 One is promoting renewable generation and maintaining PURPA are not interchangeable concepts. They are not the 13 14 same thing. 15 One can exist without the other. And number two, there 16 is a misconception that anyone who seeks changes to PURPA is somehow anti-renewable or opposes a diverse resource 17 portfolio, which is not true. 18 Arguing that renewables are beneficial alternatives to 19 20 fossil fuels and touting the value of a diverse resource 21 portfolio misses the point. 22 This is about a law which is being manipulated to the

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1 detriment of ratepayers and state commissions are struggling to balance the requirements of the act with reliability of 2 3 the grid and ratepayer indifference, all of which the act 4 requires. PURPA is not the only way to develop renewables but too 5 6 much PURPA on the grid does stifle the development of non-7 PURPA renewables. PURPA developers want to make it look like this is an 8 attack on renewables as a whole. It is not. This is not an 9 apples to apples comparison. 10 11 The must-purchase obligation makes a QF project very 12 different from other renewable projects. Utilities must 13 absorb energy whether it needs the energy or not. 14 It is not dispatchable energy that the utility can pull 15 onto the grid when it needs it. QF projects are gaming the 16 parameters of PURPA to maximize profit without any regard to 17 the effect on ratepayers and there are no realistic curtailment allowances that the states or utilities have been 18 able to utilize. These things do not apply to non-PURPA non-19 20 OF renewable resources. 21 Mr. Glass' reference to falling costs actually proves my 22 If the price of solar has dropped dramatically from point.

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2009 until now, well, we have contracts -- multiple dozens of 1 2 contracts where in 2009 they signed onto a 20-year agreement 3 at the prices in 2009. If prices have dramatically reduced since 2009 and we 4 5 are only eight years out, imagine over the 20-year life of 6 that contract how much those prices inflate each year with 7 the reduction of costs -- true costs of solar, and the longer the contract the greater the discrepancy. 8 If PURPA is to remain, then there need to be some 9 changes. I urge you to consider some of the following 10 11 solutions. 12 Lowering the 80 megawatt qualifying threshold for small 13 renewable projects -- Congress' Energy Policy Act of 2005 14 changed a threshold for QFs within organized markets to a 20 15 megawatt threshold for a presumption that they could be 16 competitive within the market. 17 Well, that is a huge difference. Is 80 megawatts small or is 20 megawatt competitive? So I would urge you to look 18 at that 80 megawatt threshold that exists. 19 20 If a QF is within a balancing authority of an energy 21 imbalance market like we have in the West, I also urge you to 22 consider applying that threshold under the Energy Policy Act

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32 1 to QFs within an energy imbalance market. I recognize that there are none in it now and that 2 3 perhaps is because they wouldn't get the prices that they can otherwise get under QF contracts within the states. 4 5 But that doesn't mean that they are not meeting the 6 requirements of the Public Utility Regulatory Policies Act. 7 It means that the QF isn't making as much money. But it doesn't mean that QFs aren't competitive within 8 9 that environment. Please allow states the discretion to address gaming. It 10 11 violates the intent of the act and it is harmful to 12 ratepayers. 13 I ask that you modify the must-purchase to consider need and allow for reasonable curtailment. Consider what battery 14 15 storage is and whether it meets the parameters of the act. 16 And finally, implement a statute of limitations on how long a 17 QF can file a complaint with FERC. 18 I have 13 seconds and I know this wasn't in my written testimony but there is currently no existing statute of 19 limitations for when a QF can take a state decision and file 20

21 with FERC for alternative treatment.

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I look forward to answering any questions that you have.

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[The prepared statement of Ms. Raper follows:]

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Mr. Upton. Thank you.

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Stephen Thomas, senior manager energy contracts, Domtar

Corporation. Welcome. Mic -- turn the mic on.

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 35 1 STATEMENT OF MR. THOMAS 2 3 Mr. Thomas. Thank you, Chairman Upton, members of the 4 committee. 5 My name is Steve Thomas. I work for Domtar --6 Mr. Upton. Just pull it just a little closer to --7 thank you. Mr. Thomas. I have worked for Domtar and I am here 8 representing IECA, or I-E-C-A, which is the Industrial Energy 9 Consumers of America. 10 11 They are a member-led nonpartisan organization that is 12 made up of leading manufacturers. Domtar itself has 23 13 manufacturing facilities across the U.S. The largest eight 14 or nine of these are PURPA QF facilities. 15 So the largest eight or nine of these are our PURPAqualifying facilities. As such, we believe that PURPA has 16 17 done its job and in its current form is doing what it is 18 supposed to. If there is issues that need to be addressed, we filed, 19 20 I think, 12 recommendations either, you know, through new 21 legislation or through guidance from the FERC to state 22 commissions that we think work for us. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1 But one thing that is important is I want to really make a distinction between QFs that are co-generators, like 2 3 ourselves, and QFs that are small power generators. And co-4 generators, what we do is we take either heat before it is 5 used in a process or heat that is a by-product of a process 6 and create electricity, and PURPA allows us to do that. 7 And that is really important as manufacturers because it helps reduce our costs, makes us more competitive in global 8 9 markets. With -- by doing this, there's something else that 10 11 happens. We are more efficient than generation from a 12 utility because we not only use that heat to create 13 electricity, we use that heat to create products. 14 And another important distinction, from co-generating 15 manufacturing facilities is we have a very large permanent 16 job base. 17 So from an economic development standpoint, once the 18 facility is built, we support a huge number of jobs -- you know, sustainable jobs going forward. We are not against 19 20 renewables. 21 We use renewable energy in our own generation. Domtar 22 itself is -- more than 70 percent of the energy we create at **NEAL R. GROSS** 

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our mills is from renewable sources.

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2 So the important thing is, again, that distinction 3 between the co-generators and small QFs. So all of our 4 recommendations that we have offered are based on that clear 5 distinction, a lot of which we have already talked about.

6 So what are some of those avoided costs is a major issue 7 for us because as co-generators there's something that 8 doesn't get realized. As an industry, we still buy 85 9 percent of our power so we are net consumers, and things that 10 affect the price of electricity, the reliable -- the 11 reliability of electricity hurt us.

So we are squarely -- our interests align withconsumers. We want affordable power that is reliable.

14 So the avoided cost issue is a really big deal. I think 15 four or five of our points are around avoided costs. We 16 don't think utilities should be forced to buy capacity when 17 they are flush with capacity and have adequate reserve 18 margins because that hurts us as consumers, you know, whether 19 we are consuming at home or at our place of business.

The one-mile rule -- our footprints are large. You know, industries like ourselves have a very large footprint a lot of times in rural areas of the country, and that large

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1 footprint -- the one-mile rule is small. 2 We think that should be larger. Again, so we are not 3 forced to pay for capacity that is not needed on the system and the -- another one that is critical to us is curtailment. 4 5 You know, when the grid is surplus generation, you know, 6 we want to be lower in the stacking order than renewables 7 because we are supporting jobs, because we are creating products that are important to the communities that we serve. 8 So with that, I will look forward to taking any 9 questions you have. 10 11 [The prepared statement of Mr. Thomas follows:] 12 13 

Mr. Upton. Thank you.

Next, Terry Kouba, vice president of Iowa Operations of

3 Alliant Energy. Welcome.

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STATEMENT OF MR. KOUBA

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3 Mr. Kouba. Good morning, Chairman Upton, and members of
 4 the subcommittee.

5 My name is Terry Kouba and I am the vice president of 6 Iowa Operations for Alliant Energy, which is a Midwest 7 utility serving 1.4 million electric and gas customers 8 throughout 1,300 communities in Iowa and Wisconsin.

9 First, let me thank the subcommittee for holding this 10 timely oversight hearing. The main focus of my testimony 11 today is to re-evaluate PURPA in light of the law's negative 12 effect on increasing wind energy costs for our customers in 13 Iowa.

I was a national leader in wind energy deployment, deriving 36 percent of the state's electricity from wind, a statistic to which Alliant Energy is a very proud contributor.

Currently, we have more than a thousand megawatts of owned and operated wind plus purchase power agreements from independent power producers and we are in the cusp of executing a plan to add an additional gigawatt of wind energy, a \$1.8 billion investment in Iowa to help serve our

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customers.

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2 We are a long way from 1978 when PURPA was enacted and I 3 was a sophomore in college. Forty years ago, the country 4 endured an energy crisis while renewable energy was in its 5 infancy as a cost-effective generation resource.

Now, two-thirds of the U.S. is served by wholesale
region electricity markets like the Midcontinent Independent
System Operator, or MISO, in Iowa.

9 States across the country in organized and unorganized 10 markets are able to competitively solicit renewable energy. 11 Despite the market-driven deployment of renewable energy in 12 Iowa and across the nation, we are still subject to PURPA's 13 outdated mandatory purchase obligation which has increased 14 electricity cost for our Iowa customers.

15 Let me explain. Under the law, we are required to 16 purchase power from PURPA-designed qualified facilities. 17 These QF resources are not procured through a competitive bid

18 process despite having access to the MISO market.

We cannot negotiate on the price paid for this energy and project locations are chosen for the benefit of the QF investor, not for the benefit of our customers.

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These QFs that violate the intent of PURPA by

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1 structuring their projects into separate LLCs to get around 2 FERC's 20 megawatt cap -- size cap in organized markets. 3 If my company went to the Iowa Utility Board to obtain regulatory approval for one of those projects under a 4 5 purchase power agreement with an independent power producer 6 like that, I am confident we would be rejected because the 7 cost premiums associated with that power would be too high. The IUB would likely question the need for this 8 expensive renewable power when it is possible to obtain 9 cheaper renewable electricity, especially in Iowa through 10 11 other means, and the IUB would have an excellent point. 12 The real losers in this situation are not utilities, 13 rather, customers who are forced to pay higher costs for 14 renewable generation that can otherwise be procured at 15 competitive prices. 16 And when a quarter of our customers' income is under 17 \$25,000 per year, that is a real concern for our company and 18 our customers. We believe that these larger QFs should be treated like 19 any other independent power producer and be required to sell 20 21 energy directly into the organized markets like MISO or 22 negotiate for PPA contracts with a utility like any other **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 independent power producer.

Doing so would reduce cost to customers and minimize system impacts that might impair reliability. Congress can take steps to improve implementation, mitigate negative impacts on customers in the grid, and better reflect current market conditions by modernizing this law.

7 We are encouraged by legislative interest to reform the 8 law in several key areas and we encourage FERC to implement 9 several recommendations found in my written testimony on an 10 administrative basis.

11 Thank you for the opportunity to appear before the 12 subcommittee today and I look forward to the discussion and 13 any questions you may have.

[The prepared statement of Mr. Kouba follows:]

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Mr. Upton. Thank you.

Mr. Baas, good to see you. Director of the Public Works

3 for Kent County, Michigan.

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STATEMENT OF MR. BAAS

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2 3 Mr. Baas. Good morning. 4 Mr. Upton. Sorry about the color change, but welcome. 5 Mr. Baas. Go blue. 6 Mr. Upton. Go blue is right. 7 Thank you, Chairman Upton, for providing an Mr. Baas. opportunity for me to testify this morning. I am the 8 director of Kent County --9 Mr. Upton. You might just pull that mic to you a little 10 11 closer. 12 Mr. Baas. I am the director of the Kent County 13 Department of Public Works in Michigan. I want to discuss 14 this morning how PURPA relates to our waste energy facility. 15 I would also like to express support for the mandatory 16 purchase obligation under PURPA and encourage Congress to 17 consider modifications that could enhance PURPA in its 18 application and effectiveness for waste energy qualified facilities. 19 20 PURPA has been a critical part of Kent County's waste 21 energy facility for the last 27 years. Kent County DPW 22 allocates funds for municipal infrastructure for five public **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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services.

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2 The waste energy facility is critical in that mission. 3 We provide a sustainable and integrated solid waste management system. We provide base load renewable 4 electricity. We offer grid support and reduce the need for 5 6 long-term or long distance transmission. 7 Energy from 76 waste energy facilities nationwide account for more than 2,500 megawatts of renewable energy, 14 8 billion kilowatts of electrical generation, and avoids 13 9 million tons of greenhouse gas generation. 10 11 Our facility in Kent County provides an alternative to 12 land filling that so many local residents, businesses, and 13 industry desire. 14 Facilities like ours are a municipal infrastructure and 15 we must remain competitive in the energy markets. Unfortunately, many have closed and more are at risk of 16 17 failure, which will strand these local government assets. A significant contributing factor is the outdated and 18 inadequate elements of PURPA policy that fails to value local 19 government and the role that these power plants have. 20 21 I have submitted detailed documentation of these 22 challenges so I will just highlight a few. Mandatory **NEAL R. GROSS** 

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1 purchase contract lengths are unrealistically short and the 2 avoided cost pricing has eroded. It is no longer reflecting 3 the intent of PURPA and the value of our system. Even the facilities between 20 and 80 megawatts are 4 5 experiencing the same challenges. In Michigan, we are 6 engaged with the Public Service Commission to fight for fair, 7 reasonable, and stable ablated cost. While the utility we work with has received \$759 million 8 in rate increases since 2008 and has another \$172 million 9 pending before the PSC, the PSC is attempting to devalue the 10 11 value of our electrical generation by 24 percent. 12 By doing that, they would take us back to rates that 13 were paid to us 20 years ago. The utility is also attempting 14 to unilaterally cancel our contract with one year's notice, 15 which is very difficult for us. 16 Local governments also own assets where's electricity 17 regulations hinder using our power. For example, we have airports, wastewater treatment plants, and courthouses and 18 many other facilities that require electricity. 19 But it is very difficult to move that electricity to 20 21 those facilities. That's why it is so critical that when we 22 receive realistic pricing that we are in such a better place. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1	Kent County uses a 10-year planning horizon for capital
2	refurbishment as does any utility that invests in plan
3	reliability. Should we face a situation where we would have
4	a contract cancelled with one year's notice it could very
5	well lead us to early closure.
6	Without certainty in energy revenue and contract length,
7	we face a lot of uncertainty in how to make investments, how
8	to invest in maintenance and in our operations.
9	Modifications to PURPA are necessary to ensure long-term
10	viability of this municipal infrastructure. I would welcome
11	opportunity to work with staff on modifications to address
12	these issues.
13	Again, thank you for the opportunity to appear before
14	you today. I will be pleased to answer any questions you
15	might have.
16	[The prepared statement of Mr. Baas follows:]
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1 Mr. Upton. Well, thank you all, and we are going to now move to questions from members here and we will limit our 2 3 questions and answers to five minutes. 4 I guess the first question that I have for each of you 5 is we, first of all, appreciate your testimony. Let us talk 6 just a little bit about the statutory and regulatory changes 7 to eliminate the abuse or gaming, as Ms. Raper talked about -- the one-mile rule. Would you oppose or support regulatory 8 changes to eliminate such and how might that look like? 9 And maybe we will start -- Ms. Raper, since you raised 10 it we'll start with you and we'll go in reverse. What should 11 12 we do about the one-year rule? 13 Ms. Raper. Thank you, Chairman. Mr. Upton. Or the one -- I am sorry, the one-mile rule. 14 15 Sorry. 16 Ms. Raper. Sure, Representatives. I think the one-mile 17 rule alone it is neither here nor there. I think changing the one-mile rule to a five-mile rule doesn't eliminate the 18 19 problem. 20 The issues with the one-mile rule that allow things like 21 wind and solar to overbuild, in my opinion, are that if 22 there's only one mile between projects they have the same **NEAL R. GROSS** 

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interconnection.

They are financed by the same thing. Just because they are named alpha bravo charlie delta echo doesn't make them different projects.

5 And so a one -- changing the one-mile rule only without 6 changing some of the considerations for what truly makes it a 7 separate entity it wouldn't solve the problem.

8 There need to be other considerations taken into account 9 in order to -- because my understanding of the one mile rule 10 is that it was intended to make sure that they were separate 11 entities that were doing these builds and it hasn't worked to 12 that effect.

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Mr. Upton. Mr. Thomas.

Mr. Thomas. Thank you. You know, again, as a manufacturer our footprints are so much larger than that onemile. You know, our concern, again, goes back to reliability.

A lot of times the one-mile or three-mile circle -- the generation is all the same type. If it is all solar, it is all going to go down when the sun is not shining. If it is all wind, it is going to go down when the wind is not blowing. Or it is going to over produce when the wind is

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1 blowing.

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2 So, you know, the generation type comes into effect 3 there, too, and, again, a much larger footprint would not 4 affect manufacturing.

Mr. Upton. Mr. Kouba.

6 Mr. Kouba. Yes. As I answer that question, let me make 7 it clear that I am here today advocating on behalf of our 8 customer. I, along with my company, is also an advocate for 9 renewable energy.

10As I said in my opening statement and my written11statement, we have significant renewable energy resources,12primarily wind, and we are adding a significant amount more.

We are also about to energize the most powerful solar facility in the state of Iowa so we are definitely advocates of renewable energy.

16 With respect to this issue, what we have is 17 sophisticated foreign-owned companies that are planning, 18 proposing, and investing in projects in Iowa that in total 19 exceed the 20 megawatt PURPA cap.

Because they evidently do not want to compete with the generation market in Iowa and MISO, and make no mistake about it, the generation market in Iowa with all our wind is

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1	extremely competitive, they disaggregate these facilities
2	into much smaller projects, organize under separate LLCs but
3	ultimately through the same ownership.
4	They then take those smaller facilities that get below
5	the 20 megawatt cap. They spread them apart so they are a
6	mile apart and then they can qualify for PURPA plus we can't
7	challenge that.
8	So we would propose to eliminate that one-mile rule so
9	we can challenge these projects that are, clearly,
10	disaggregation that ultimately end up costing our company, in
11	one case, 20 percent more than what we could get with other
12	projects.
13	Mr. Upton. I know that I am running out of time. Mr.
14	Baas, it doesn't really impact your folks all that much.
15	Let me go to Mr. Prager and Mr. Glass and my time will
16	have expired.
17	Mr. Prager. Thank you, Mr. Chairman.
18	We actually have an actual experience, which I mentioned
19	in my oral testimony, in Texas where we had someone come in
20	and actually game the system in order to use the one-mile
21	rule to separate a much larger wind project into two
22	different QFs and be able to force the avoided cost pricing.
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I think Commissioner Raper really hit it on the head. We need to have a process in place at FERC where FERC looks at the reality of what's happening.

It doesn't elevate the form of its one-mile over the substance of what's actually happening on the ground. If you have one project subject to common control, subject to common interconnection, treated in every respect as one project, even if particular segments of that are a mile apart, they should be treated as one project and therefore not subject to the PURPA requirements.

Mr. Upton. And Mr. Glass, quickly.

Mr. Glass. We don't think the one-mile rule is really an issue for the solar power industry. We use the land more intensively on, like, for instance, a wind farm our average project sizes are such that it just doesn't make sense.

We think it works and we have no problem with actually FERC taking a look at the one-mile rule. However, the one thing that should happen is that the rule needs to be clear and easily determined without an administrative review or result because there's no way to invest capital if the utility or the utility commission is going to gotcha after you've tried to finance a project. It is just not going to

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1 happen. 2 Mr. Upton. Thank you. 3 Mr. McNerney. 4 Mr. Peters. Thank you, Mr. Chairman. 5 I want to say, first of all, I grew up in a Wolverine 6 household, not a Spartan household. So I am okay with the 7 color. The -- so one of themes of this testimony has been that 8 since 1978 the renewables markets have matured in a way that 9 what was originally conceived under PURPA is probably less 10 11 important now or maybe less needed now. 12 Mr. Thomas, you raised the issue I wanted to explore 13 about co-generation. Is it your contention that the nature of that particular energy is something that still PURPA needs 14 15 to rely on? Can you explain a little bit more about what you 16 were -- how you were distinguishing cogen from other kinds of 17 renewable energy generation? 18 Mr. Thomas. Sure, and thank you for the opportunity to, you know, further emphasize. The idea of co-generation is 19 20 that it is -- that generation is co-located with load. 21 So we use what is steam or heat that would otherwise go 22 to waste to create electricity that we use on site. So that **NEAL R. GROSS** 

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part of it is all about the economics of producing our 1 2 products cheaper. 3 It has side benefits for the grid. If we were just a 4 load on the grid, the utilities would supply us from a 5 distance. I think 7 percent line losses is not uncommon. So 6 by providing a lot of our energy ourselves we reduce that 7 need. 8 Mr. Peters. Right. So you are doing co-generation because it supports your facility's operations. It lowers 9 your costs. You are not trying to produce energy offsite --10 11 you are using it on site? 12 Mr. Thomas. Right. We sell --13 Mr. Peters. So you are really not incentivized by PURPA to do co-generation? 14 15 Mr. Thomas. Not at all. 16 Mr. Peters. Okay. 17 Mr. Thomas. We are -- we are consumers. We don't want 18 high prices. We want --19 Mr. Peters. I got it. 20 Mr. Thomas. -- because we don't sell power back to the 21 grid except for just rare short periods. None of our 22 facilities are net generators month to month. They might, **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701 (202) 234-4433 www.nealrgross.com

1	from one hour to another, generate a little bit. But for the
2	most part
3	Mr. Peters. I see. I just wanted to clear that up
4	because I might have Does anyone have a reason why
5	there's not a statute of limitations on these challenges?
6	Does anyone understand or think that that is a good policy?
7	Some heartburn about changing that? No?
8	Mr. Glass, I would just like you to maybe respond to
9	this the theme of with lower renewables costs maybe the
10	role for PURPA has changed.
11	Can you can you tell us kind of how you think the
12	what changes would you acknowledge have been made what
13	kind of easing could happen and what's the role of PURPA,
14	going forward, and encouraging renewables?
15	Mr. Glass. Well, you know, and one of the fine
16	testimonies that was submitted talked about disco balls and
17	shag carpeting, and I commend you for that. I grew up in
18	Spokane, Washington, in the '70s. It was a great time.
19	But competition is not out of style and it didn't go
20	away with the '70s. I think that if you look at the
21	renewable energy industry, you know, we are up but really
22	natural gas has taken the position of coal and a little bit
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of nuclear and taken over for petroleum-based generation for that. But overall, the amount of diversity -- we have not yet

achieved the diversity that we need. The more important
point is that this idea that somehow or another avoided costs
are too high, that is just wrong.

And I would like to -- I would like to think that the
committee needs to look into that. The subcommittee needs to
look into that because the utilities and the utility
commissions control avoided cost.

11 There is a number of methodologies by which they do 12 that. We've been in a declining cost system and in some 13 cases some utilities and state commissions haven't got to 14 avoided costs that reflect the true market price.

15 That is not a reason to do away with legislation itself.
16 It is a reason to fix the avoided costs if that is what needs
17 to happen.

18 Mr. Peters. Okay. Would someone like to respond --19 maybe Ms. Raper or Mr. Kouba -- on that issue, the avoided 20 cost issue?

21 Ms. Raper. I would be happy to. Thank you.

22 Congressman, regarding the avoided cost issue, could we

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1 change our avoided cost in Idaho to be more reflective of a 2 market price? Yes, we could. 3 Would we damage things like the co-generation that is really not manipulating the system, not attempting to take 4 advantage at the -- at the harm of rate payers? They're just 5 6 using a by-product of what their normal market is. 7 We would rather be able to have an avoided cost that truly supports what PURPA intended it to be -- to be able to 8 bring on those small power producers -- renewable power 9 producers and -- and if we reduced it to a market price then 10 11 we would see probably complete elimination of any of those 12 PURPA projects. Maybe that is the answer. 13 Mr. Peters. Mr. Kouba. 14 Mr. Kouba. I will make one quick comment. We did 15 recently change our avoided costs and one of those foreign developers working on a new project then complained that it 16 17 was too low and is in with the Iowa Utility Board wanting us 18 to basically double the avoided costs. So I think there is some things that all of us can do to 19 make the avoided costs more realistic. But we still have to 20 21 agree that no matter how you offset we have a very volatile market out there that changes often. So we are going to have 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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to make sure that we are constantly updating the avoided 1 2 costs. 3 Mr. Peters. Thanks for the testimony. My time has 4 expired. 5 Mr. Walberg. [Presiding.] I thank the gentleman. 6 Now I recognize the gentleman from West Virginia, Mr. 7 McKinley. 8 Mr. McKinley. Thank you, Mr. Chairman. Mr. Glass, I think we are all familiar with the fact 9 that the utilities -- the electric consumption in this 10 11 country has been growing about the last eight years. 12 So there has been this ongoing conflict in the producers 13 of electricity to maintain their market share and I support 14 the idea of the renewables in a big way. I am delighted that 15 they are -- but as a result of that, someone's losing. 16 There is coal producers, coal generating, gas generated, 17 at the expense that seemingly the federal government is trying to support through PURPA and others and tax credits --18 the use of more solar, wind. 19 What level -- we are currently around 15 percent of 20 21 renewables, I believe, creating power in America. If we 22 continue this, what is the magic number? **NEAL R. GROSS** 

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1 And we are subsidizing it at a pretty good clip. I think it is \$28 per megawatt hour. I had some notes -- wind 2 3 has \$28 per megawatt hour. I don't know what solar is with that. What's the right level? 4 Should we continue to be providing subsidies and where 5 6 did we reach a point that we stopped the subsidies? Is it do 7 we want to get to 50 percent renewables in this country? Were we trying to get to 100 percent? When do we stop 8 the subsidies? 9 Mr. Glass. Thank you for the question. 10 11 The first thing I would say is that I think the DOE 12 staff report that came out made very clear that it is not 13 renewables causing the issues that you are talking about. 14 Rather, it is the low cost of gas, which is a great 15 domestic source of energy in this country and all of that. 16 So --17 Mr. McKinley. No, no, no. I want to -- stop you on that, please. Five of the last eight years there has been a 18 rather -- I am not arguing over the price of gas. Renewables 19 are continuing to expand, and I applaud that. But it is at a 20 21 cost. 22 Somebody is losing out market share as a result of that, **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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and it could be gas. It could be coal. It could be nuclear. 1 Something is -- somebody is being affected. Where do we go? 2 3 If it is 15 percent -- is the objective -- do you think we are -- should we still be subsidizing companies when they 4 5 represent 50 percent of the market share? 6 Mr. Glass. Well, I --7 Mr. McKinley. Could you answer that, please? It is a 8 yes or no. 9 Mr. Glass. Sure. Sure. I don't have a particular goal. I don't have a federal 10 11 RPS goal -- renewable portfolio standard goal -- and I don't 12 think that -- I am at least not prepared to speak on behalf 13 of SEIA as to what that might be. The one thing I would say is that solar right now is 14 15 less than 1 percent or just about 1 percent of the total, and 16 I think it could grow more, because the reason is I am not so 17 much worried about who is winning and losing market share. I am more interested in reducing the cost of power for 18 consumers and if --19 20 Mr. McKinley. Well, I am interested in keeping jobs for 21 the people in -- that are in the producer --Mr. Glass. I would love to talk about it. The solar 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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industry --

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2 Mr. McKinley. So if I could, Mr. Thomas -- if I could 3 reclaim my time to Mr. Thomas under Domtar, you made a remark 4 in your statement.

5 The renewable energy QFs should not, in your opinion, be 6 allowed to include production tax credits or the value of 7 renewable energy credits in their calculation when they bid 8 into the system. Could you explain that a little bit? 9 Mr. Thomas. Sure, and thank you for the opportunity. 10 Basically, what we are saying is, you know, we know

11 renewables are subsidized. We don't object to that. It has 12 done a good job of creating a renewable market.

But when we start bidding into cost-base market systems, those subsidies should not be allowed to be bid in, and that just keeps it on an even keel -- on a competitive process because at face value it looks like bidding in, including your subsidies, lowers the price and it does in the immediate -- in the immediate.

But in the future, it causes generation assets that are built by utilities to have to be shut down because they can't compete. They're not subsidized.

22

Once they are shut down for any length of time, then

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1	they end up getting mothballed. Their customers are stuck
2	with capital payment on a resource that is not being used.
3	Mr. McKinley. I have got a this may be a fundamental
4	question. My time is almost up. If a utility is required to
5	purchase from a QF facility and yet they have not been
6	successful in bidding into the PJM for that market for that
7	day, are they still required to purchase?
8	Mr. Thomas. I don't know that I understand the question
9	entirely.
10	Mr. McKinley. If a utility company is not not
11	providing power into the grid but yet they are are they
12	still required when they bid in and they are not
13	successful so they are not they are not providing power to
14	the grid that day or that week but yet are they still
15	required to purchase power from a QF?
16	Mr. Thomas. And PJM is a competitive market. I don't
17	know the answer
18	Mr. McKinley. Okay.
19	Mr. Thomas how a utility would react to that. I
20	know in our situation at PJM where we where we might sell
21	generation, if we don't make the bid we don't generate into
22	the grid.
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1 Mr. McKinley. Yeah. I just wondered whether you are required, though, to still purchase power under QF. Thank 2 3 you. I yield back my time. 4 Mr. Walberg. Gentleman's time has expired. I now 5 recognize the gentleman from the state in all of our thoughts 6 and prayers, Mr. Green. 7 Mr. Green. Thank you, Mr. Chairman, and I would like to thank you and our Ranking Member Rush for having the hearing 8 9 today. PURPA is an interesting program borne of unique 10 11 circumstances in the '70s and I look forward to hearing a 12 variety of perspectives on its modernization from witnesses. 13 Mr. Prager, in your testimony you talk about PURPA's 14 must-take provisions and how they affect state resource 15 planning. Can you elaborate on how the right of a qualifying facility under PURPA can interact with local state 16 17 procurement processes for independent power producers? 18 Of course, you have to realize I come from Texas and we have ERCOT. So it is different from the rest of the country. 19 20 Mr. Prager. We actually operate in the Texas Panhandle, 21 just outside of ERCOT. So our Texas facilities are actually 22 a little bit different than the ERCOT facilities. **NEAL R. GROSS** 

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1 But the fundamental issue with PURPA and state resource 2 planning is PURPA is a must-take requirement. It is a must 3 contract requirement that happens independent of the state 4 resource planning processes. 5 So you can see in that that what happens is you end up 6 with a independent power producer that comes in as a 7 qualifying facility and it puts the power to the utility outside of the resource planning process. 8 Because for the renewable energy component of PURPA, 9 those facilities are intermittent. It is very difficult for 10 11 a state which is responsible for maintaining a reliable and a 12 cost-effective power supply to ensure that those facilities

13 are integrated appropriately into the system.

That is why we think it is so important that we begin to find a way to integrate the renewable energy requirements that are coming out of states, which are really significant right now and are driving a lot of the energy growth -- the renewable energy growth we see on our system with the PURPA must-purchase requirements.

20 Mr. Green. Okay. And your area you serve in Texas I 21 know in west Texas windmills -- do you have any of that 22 issues -- that alternative rather than solar?

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1 Mr. Prager. We -- we do have some solar and we are adding more in Texas. Solar is a tremendous growing resource 2 3 and Mr. Glass quoted my disco ball quote from my testimony. 4 I will say that we are excited about the potential for 5 solar, especially in west Texas and in New Mexico. But, 6 again, it is important to do it the right way, because if you 7 do it the right way you can bring a lot of renewable energy to your customers and do it in a way that is extraordinarily 8 cost effective and reliable. The best way to do that is 9 through the state planning processes. 10 11 Mr. Green. Well, obviously, from Texas I would love to 12 see us do with solar what we have done with wind power, and 13 for my California friends I am always bragging about how we produce more wind power in Texas than California. So and we 14 15 like to do solar --Mr. Peters. There is a lot of hot air. 16 17 [Laughter.] 18 Mr. Green. Well, I offered to send you a whole lot of water last week. 19 20 [Laughter.] 21 Mr. Green. Mr. Glass, in your testimony you talk about 22 how SEIA's members are driving down the price of solar to **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1 compete favorably with all the other forms of power generation. 2 3 Can you elaborate on how current technological innovations and efficiencies of scale have changed PURPA 4 5 contracts from high-cost contracts of the past to today? 6 Mr. Glass. Well, thank you for the question. 7 I've been developing and financing solar projects for about 12 years now and the price of the installed capacity 8 has come down to about one-sixth of where it actually began 9 10 when I started practising. And this has been done through technological innovation, 11 12 massive investment in capacity manufacturing as well as a lot of innovation -- technological and business model innovation 13 that has driven down these costs to the point where, you 14 15 know, we have PPAs that are now less than \$20 per megawatt 16 hour that are being executed in various places. 17 We are able and look forward to installing and selling to utilities at their -- those prices. 18 But the avoided costs we don't control that at all. We 19 20 are a price taker under the avoided cost methodology that the 21 utility and the utility commission set. 22 So I would like to encourage to the extent that there

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1	are problems with avoided costs that they review those costs
2	and if solar is the best and cheapest alternative, let us
3	make it set on that and let us get more solar installed
4	because we have 260,000 jobs that have been built over the
5	last 12 years and we'd love to add more.
6	Mr. Green. Well, the original intent of PURPA was to
7	push for alternative sources of power during an energy crisis
8	in the 1970s.
9	Alternatives today are a booming market, and from your
10	testimony I get the sense that you see the primary purpose of
11	PURPA is increasing competition and putting downward pressure
12	on utility companies to reducing prices for consumers. Is
13	that an accurate characterization?
14	Mr. Glass. Yes.
15	Mr. Green. Okay. Mr. Chairman, I thank you for holding
16	the hearing and because, again, in the 1970s we also had
17	an embargo on exporting crude oil and we changed that. So
18	maybe we need to look at PURPA and bring it up to date.
19	Thank you.
20	Mr. Walberg. I thank the gentleman.
21	I recognize now the gentleman from Ohio, Mr. Johnson.
22	Mr. Johnson. Thank you, Mr. Chairman. I appreciate it.
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1 And I want to thank all of our panellists for being here today. I appreciate it. Important topic. 2 3 Commissioner Raper, in your testimony you state utilities prepare detailed integrated resource plans and make 4 investments based on perceived need. 5 6 When discussing PURPA, I think it is important to get a 7 better understanding of this process, especially, as you state, when a QF steps in it changes many of the factors that 8 led to the utility's original conclusions. 9 New QF resources are not contemplated by integrated 10 resource plans because they are not known or measurable by 11 12 the utility. 13 So can you describe that process? In other words, how does a utility prepare their integrated resource plans and 14 15 make investments based on their needs? What is that process? 16 Ms. Raper. Thank you, Congressman, and it actually goes 17 a little bit to Congressman Green's question about the 18 renewable portfolio standards and perceived need. A utility, every two years, does a 20-year plan of what 19 their resource needs might be based on growth and customers 20 21 and anticipating, based on history, what it is going to look 22 like into the future. **NEAL R. GROSS** 

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1	But when a QF comes on, it just puts in a contract, you
2	know, it is a must-purchase. They say, here you go, we want
3	to build. So when rates are favorable to a QF they just come
4	in.
5	There's no way for the utility during that integrated
6	resource planning process to say okay, we are going to have
7	six new QFs that we are going to bring on. They're not
8	allowed to limit that.
9	They're not allowed to say we are going to have five new
10	wind resources and six new solar resources and that is all we
11	are going to take and so we can plan for that, and we have
12	enough caseload in order to cover the intermittency of those
13	resources.
14	They don't have the ability to plan for that. So what
15	they are forced to do what our utilities have been forced
16	to do, and we have watched it with the integrated resource
17	planning process, is it's a it's, you know, one step
18	forward, two steps back.
19	They make their plan. But then they have to adjust.
20	It's a good thing they file a 20-year plan every two years
21	because they are having to adjust each time they come to
22	anticipate different base load resources to guess at where
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rates are at right now and what QFs may come online.

2 Mr. Green. I was going to ask you, and maybe you 3 answered this, how long it takes to develop those plans. So 4 if they do it every two years for a 20-year out cycle, does 5 it take the full two years? I mean, are they working on that 6 for two years?

Ms. Raper. Well, Mr. Kouba may be able to answer that
more directly as a utility. But it is my understanding that
they are constantly planning. They are constantly modifying
and anticipating and doing studies on what they may need.

11 Mr. Green. Okay. Continuing on then, can you explain 12 the changes that might need to be made to a utility's 13 resource plan when integrating a small power production 14 facility?

Ms. Raper. Well, if it's a true small power production facility, if it's a five-megawatt, a 10-megawatt, you know, geothermal plant, then there are small -- incremental modifications that have to be made in order to balance out those resources.

But when you get 100 megawatts that is disaggregated into five 20-megawatt projects, then for our utilities, I mean, it's different in the east than it is in the west.

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Idaho Power, on their -- during a shoulder month when 1 the wind is blowing, their peak load can be as low as 1,100 2 3 megawatts. Well, they have more QF resources online than 4 their peak load on those days. 5 So the ability for them to try to balance that is 6 enormous. 7 Mr. Green. Okay. So how do these changes compare when a utility is required to accommodate generation for multiple 8 9 QFs? Ms. Raper. How do the utilities compare? 10 Mr. Green. Yes. Does the process change when a utility 11 is required to accommodate generation for multiple QFs? Does 12 13 it make it more complicated? Ms. Raper. Absolutely. Yes, because you are bringing 14 15 on a hundred megawatts of resources that are, one, 16 intermittent, that are, two, must take and they are not 17 necessarily being provided at an hour -- at a time of year 18 and time of day when the utility needs those resources, and the base load resources of the utilities can only be backed 19 20 off so far. 21 Hydro can't be shut off. Coal plants can't be shut off. 22 There's a minimum, you know, must run on those base load **NEAL R. GROSS** 

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1 facilities.

Mr. Green. Okay. All right. Well, thank you very 2 3 much. Mr. Chairman, I yield back. Mr. Walberg. I thank the gentleman. 4 5 Now I recognize my friend from Illinois, the ranking 6 member, Mr. Rush. 7 Mr. Rush. I want to thank you, Mr. Chairman. I had a question for Mr. Glass and Mr. Baas. The 8 question might have been asked and answered but I really want 9 to know, one of the most contentious issues that critics have 10 cited PURPA's mandatory purchase obligation. Critics argue 11 12 that the purchase obligation under Section 210 requires them 13 to purchase power that they may not need from small QFs and 14 above market rates. 15 They claim that this misplaces lower cost resources and unnecessarily increases rates to consumers. And I'd like to 16 17 get your response, Mr. Glass and Mr. Baas. Mr. Glass. Glass before Baas? 18 Mr. Rush. Any way you want to do it. 19 20 Mr. Glass. Thank you for the question. 21 I have already spoken to the fact that I -- if avoided 22 costs are being created and approved by a regulatory agency, **NEAL R. GROSS** 

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1	there should not be a situation in which the utility is
2	buying at greater that its incremental cost of buying energy.
3	If its if PURPA and its implementing regulations are
4	being administered correctly, that is not a situation you'll
5	find it in.
6	I actually think that and thank you for the question
7	because I think there are a lot of other issues that we
8	haven't really talked about yet that are being created in the
9	PURPA environment.
10	I think that there are some states that are taking
11	particular steps to eliminate QF projects altogether. They
12	are eliminating they are, for instance, reducing the term
13	to something that is not financeable.
14	They are introducing other requirements such as RFPs and
15	other things that need to be satisfied before they can be
16	before a QF can locate.
17	But the ultimate thing that has to understand if you are
18	going to have an independent a competitive independent
19	generation capacity in this country you need to have the
20	ability to have a long-term stream of revenues to be able to
21	finance these facilities.
22	Utilities have the ability to put costs onto their
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customers over a 20-, 30-year period. A utility, when it's 1 2 planning to build generation, does not do it on a two-year 3 basis, it does it on a longer term. 4 Well, independent power is looking for the same type of 5 thing. If we are going to put money to work we need to have 6 that long-term stream of revenues and certainty. 7 Mr. Rush. Mr. Baas, you want to charge at this? Mr. Baas. Yes. Thank you for the opportunity to 8 9 comment. In Michigan, the utilities receive full cost recovery 10 11 and so when the Public Service Commission does rate reviews 12 they are ensuring that the utilities are being paid their 13 full cost of operation. 14 Our facility is a base load facility. It's been 15 providing electricity for 27 years. We certainly are in the planning of the utility and have been there for a long time. 16 17 When we look at what the Public Service Commission is 18 doing in terms of determining avoided cost versus what the utilities are being paid, there is a significant difference. 19 And so we believe we are very competitive and we are 20 21 seeing utilities actually attempt to build new generation 22 capacity at our expense. **NEAL R. GROSS** 

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1	When they want to move us to a one-year notification on
2	a contract it's difficult for us to invest millions of
3	dollars in refurbishment. It's difficult for us to take our
4	10-year planning horizon to determine what are we going to
5	pay for in the future when it's set up like that.
6	Mr. Rush. I want to ask and want to quickly go down the
7	line and ask simply ask one question. We can start with
8	you, Mr. Baas.
9	Give me a yes or no if Congress should make tweaks to
10	PURPA or leave it as it is. Yes or no.
11	Mr. Baas. Yes.
12	Mr. Kouba. Yes, we should modify PURPA.
13	Mr. Thomas. No, we prefer it in the current form.
14	Ms. Raper. Yes, update, Congressman.
15	Mr. Glass. No, leave it as it is.
16	Mr. Prager. Yes, we believe it should be modified.
17	Mr. Rush. Thank you. Mr. Chairman, I yield back.
18	Mr. Walberg. I thank the gentleman, and I recognize the
19	gentleman from Missouri, Mr. Long.
20	Mr. Long. I might have to watch that on replay. That
21	reminded me of "What's My Line?" when they are yes, no, leave
22	it as it is.
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77 1 I think I stepped out of the room for just a minute and I believe Mr. Johnson stole my notes so this might sound like 2 3 familiar territory to what he was asking but I am going to 4 ask these questions of Mr. Prager. Under PURPA's mandatory purchase obligation, a host 5 6 utility is required to purchase a qualified facility's output 7 even if the utility has no need for additional power. How does the utility respond to these types of 8 9 situations? Mr. Prager. Well, I provided the congressman an example 10 of what we are going through in Colorado right now with the 11 12 particular QF developer that is trying to put to us 1,520 13 megawatts of power. 14 It presents a very big problem to us. It really does. 15 It means that we can't be certain about what our generation 16 capacity is going to be. It raises costs for customers. We 17 had some discussion earlier about avoided costs. 18 Reality with avoided costs is that the avoided costs calculations that are done under PURPA are supposed to make 19 20 the customer indifferent to whether or not the project is

21 financed or not.

22

That is not the case when a PURPA cost comes in above

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1 what would have to be bid into a competitive process. That's 2 one of the concerns we have about it. 3 It also, when you have a PURPA facility coming on to the system, it locks the ability of other generators -- other 4 5 independent power producers to be able to access the 6 marketplace. 7 I mentioned we have a lot of wind on our system. Sixtyfive percent of that is not owned by our company. It's owned 8 by independent power producers. If a QF comes in and it 9 occupies that field, it will be impossible for those IPPs to 10 11 come in and take their position. 12 And finally, it also presents for our state and our 13 system some significant challenges in terms of the 14 reliability and protecting the reliability and cost 15 effectiveness of the system. 16 Intermittent renewables are a technical challenge from 17 an electric system standpoint. You can make it work. We have made it work. We are very optimistic about the future. 18 But you've got to do it in the right way. 19 The problem with PURPA is these projects show up at a 20 21 time and location of their choosing and it's very difficult 22 for us to plan around those projects. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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Mr. Long. And what impact does this have on cost to the 1 2 consumer? 3 Mr. Prager. We believe that PURPA has the potential to 4 raise consumer costs because we have got to accommodate these 5 higher cost resources and we have to do it in a way that will 6 result in additional investment in our system to accommodate 7 the location in which they would be built. Mr. Long. And you talked specifically about how it 8 affects your output -- the utility's output? 9 Mr. Prager. Utility output. 10 11 Mr. Long. The utility output, how it affects the QFs? 12 Mr. Prager. We believe it's very important that the 13 utility have the ability to plan around the system as it's 14 currently designed and so we think it's extremely important 15 that the state have the leadership role in terms of setting the strategy that the utility must follow in order to achieve 16 17 not only a reliable and low cost electric system, which are both critical, but also achieve those public policy goals 18 whether it's emission reduction or renewable energy. 19 20 We found that our states do an extraordinarily good job 21 of that. They do an extraordinarily good job of it and in 22 fact the renewable --

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Mr. Long. So you think they can anticipate and plan for 1 2 integration? 3 Mr. Prager. It's hard for them to do it when these 4 projects just show up whenever they want to. It's very 5 difficult. 6 Mr. Long. Okay. And so should the state commissions be 7 able to suspend the mandatory purchase requirement if it determines the utility does not need the additional power --8 Mr. Prager. We believe they should. 9 Mr. Long. -- in your opinion? 10 11 Mr. Prager. We believe they should. Yes, sir. 12 Mr. Long. Okay. Thank you. 13 And with that, Mr. Chairman, I yield back. 14 Mr. Walberg. I thank the gentleman. And I recognize 15 the gentleman from Iowa, Mr. Loebsack. 16 Mr. Loebsack. Thank you, Mr. Chair. It's always great 17 to have these hearings so we can hear from a lot of different 18 perspectives. For me, being from Iowa and particularly proud, 19 20 obviously, of what we do with wind, Mr. Kouba, you and the 21 other principal utility in the state of Iowa, very, very 22 important when it comes to that. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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I do have one quick question. Is there any way we can 1 get to 40 percent of electricity by the end of the year or is 2 3 that a pipe dream? 4 Mr. Kouba. I wouldn't say it's a pipe dream and we are 5 working hard to get there. 6 Mr. Loebsack. Yes. It's going to be hard, because to 7 get there we're 36 percent now. I do want to say, though, first, I want to mention solar because there is more and more 8 solar in Iowa all the time as well. 9 A lot of people don't think of Iowa as, you know, having 10 a lot of solar. But it really does, and I really want to 11 12 thank Alliant for doing what it is doing. You know, we have 13 a lot of RACs that are working on this. SIPCO is providing solar to five and maybe even more 14 15 now. I know they are planning to do even more. And we have qot a lot of -- lot of folks, you know, ranging from schools 16 17 to farms to hog farmers who are installing solar panels. 18 The ITC, I think, has been very, very good for that. Ι know there are many concerned about these particular programs 19 20 and subsidies. But the ITC, I think, has served its purpose 21 and the PTC for wind -- there is no question about that. 22 So I am very proud of what I was doing at this point. **NEAL R. GROSS** 

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1	We have a great story to tell when it comes to wind, and we
2	may be behind Texas when it comes to wind power but we are
3	still ahead of California, nonetheless, and it's great.
4	But, you know, I am pleased to hear, obviously, the \$1
5	billion commitment to build more wind in Iowa too on the part
6	of Alliant Energy.
7	It's great news, and as for PURPA modernization, I want
8	to ensure, I guess, that wind energy is deployed in the most
9	cost effective manner for my constituents, for all of Iowa,
10	for the entire country, while ensuring that the federal
11	government continues to promote renewable growth energy in my
12	state.
13	And I think there is a story to tell there. You can
14	elaborate a little bit more. I mean, I guess the question
15	that I would have at the outset is has PURPA actually served
16	to drive extensive renewable energy development in the past
17	and where are we to go from there?
18	You have some policy recommendations. You mentioned the
19	one-mile the one-mile rule. But, I mean, did it work in
20	the past but now we are just having some difficulty with it
21	at the moment and reforms are necessary? Is that fair to
22	say, Mr. Kouba?
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1 Mr. Kouba. I would agree it has worked in the past. In 2 some respects, it's still working. I think for us 3 specifically what we see in Iowa is foreign companies abusing the intent and spirit of PURPA when they disaggregate these 4 5 projects, move them down to the distribution system which 6 causes all sorts of reliability problems in and of itself. 7 So it's those companies we think that are abusing that. Just instead of competing in Iowa in the renewable market, 8 disaggregating the systems, moving down to the distribution 9 system, claiming they are PURPA facilities, spread them one 10 11 mile apart so we can't even challenge that. 12 The IUB can't challenge that. So that is our main concern with what's going on right now with respect to abuses 13 14 of PURPA. 15 Mr. Loebsack. Do you have other policy recommendations 16 beyond the one-mile rule issue? 17 Mr. Kouba. We do have policy recommendations. The onemile rule is one of them. The other one is to be able to 18 challenge this disaggregation of larger projects. 19 Also, for the states to be able to say that utilities do 20 21 not need to buy that capacity and energy when it is not 22 needed and, really, a number of the panellists have talked **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1 about how you get that integrated resource planning process 2 in itself and just make that more of a competitive process 3 instead of just those QFs that are disaggregate on those projects and putting it on the utilities. 4 5 Mr. Loebsack. Right. 6 Mr. Kouba. We're looking for competitive resources for 7 our customers. 8 Mr. Loebsack. Right. And then, ultimately, obviously, it is to make sure that we have competition so that the cost 9 to the consumer, you know, is driven down as well. 10 11 And so that is really important and I know Mr. McKinley 12 mentioned jobs. You know, in the state of Iowa wind has created thousands of jobs. Solar is creating more jobs every 13 14 day. Wind certainly has. 15 In my district alone, I often mention in these hearings 16 that I have a number of wind energy plants in my 17 congressional district alone, two of them in Newton, Iowa, where we once had Maytaq, Whirlpool. No longer. 18 But the wind energy industry has come in and really 19 20 created a lot of great new jobs, and so I want to continue to 21 do that as best I can. 22 But thinking also our consumers of energy and making

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1	sure that what we have in place the regulatory framework
2	we have in place, going forward, whatever that may be is
3	going to serve those energy consumers as well.
4	So with that, I yield back. Thank you, Mr. Chair. I
5	thank the panel.
6	Mr. Walberg. I thank I thank the gentleman.
7	I now recognize the gentleman from Illinois, Mr.
8	Kinzinger.
9	Mr. Kinzinger. Well, thank you, Mr. Chair, and thank
10	you all for being here. A lot of the questions I wanted to
11	ask have been asked so I will just hit a couple.
12	Ms. Raper, the driving factor behind PURPA was national
13	security through field diversity after the oil embargo. We
14	have seen great success in energy efficiency in the
15	development of domestic renewables since the '70s.
16	Today, however, energy security means more than just
17	security of supply. It's reliability, particularly during
18	and after extreme weather. It's grid resiliency. It's
19	mitigating cyber attacks and some other concerns.
20	As a state regulator, do you see circumstances where
21	PURPA may impact grid reliability or not allow you the most
22	efficient plan for energy security in your state?
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1 Thank you, Congressman. I do see Ms. Raper. 2 circumstances where PURPA could impact grid reliability 3 because as a must-take resource we are forced to approve contracts and the utility is forced to accept that energy 4 onto their system and they need to find a way to balance that 5 6 energy. 7 I don't know about national security risks so much, although I do appreciate you bringing that up because that is 8 becoming a greater and greater concern for the state 9 regulatory commissions. 10 11 But it absolutely affects and impacts reliability of the 12 grid when you have more megawatts entering onto distribution 13 and transmission systems than what's being taken off because 14 of flat load and reduced load by energy efficiency measures. 15 Mr. Kinzinger. Thank you. And to the rest of the 16 panel, do you -- anyone else want to comment on the role of 17 PURPA in light of the much broader definition of energy 18 security? Thank you, Congressman. 19 Mr. Baas. 20 Mr. Kinzinger. We'll go over here and then over here. 21 I am sorry. So we'll start with Mr. Glass. 22 Mr. Glass. Thank you. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 Actually, I think it's a great question. It's something 2 that all utility, utility commissioners, and Congress and 3 FERC should all be paying attention to. I think that we are looking at newer -- new types of 4 risks -- not just weather risks, but national security risks 5 6 of all different types. 7 I think that there has been a recognition within the utility industry in the last 10 years that with a greater 8 diversity of resources on the system located at different 9 places on the grids, while it might be more complicated, it 10 11 certainly is a lot more robust in a variety of situations. 12 And, sure, the utilities -- and the utility commissions 13 need to know how to use these resources but solar resources 14 in particular and, more broadly, distributed smaller 15 resources throughout the system actually adds a great deal of security -- energy security to the extent that it can be 16 17 managed better. So I think greater diversity helps with 18 security. Mr. Baas. My comment was going to be not to forget 19 20 existing base load renewable energy such as waste energy. 21 The utilities in Michigan are looking to build and construct 22 new capacity when they are really beginning to frown on

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1	existing renewable under PURPA. And so we would I would
2	ask that you consider that.
3	Mr. Kinzinger. Thank you.
4	Mr. Prager. In terms of the security of the grid,
5	especially when you think about cyber security, it's never
6	completely clear that you actually are making the grid more
7	secure with more distributed resources.
8	There is some real value in having greater diversity on
9	the grid to help protect from having one massive failure.
10	The problem is is that with a lot of different facilities on
11	the grid they represent doors into the system where
12	cybersecurity threats can enter in.
13	We spend a lot of time thinking about this and it is one
14	of the growing concerns as you add more distributed resources
15	to the system and that is true for a lot of these QFs as
16	well.
17	Mr. Kinzinger. Thank you.
18	To the panel, you all provided the areas that PURPA
19	could be modernized and improved. With energy technology
20	almost constantly evolving and rapid changes to the kinds of
21	energy security threats we face, what, if anything, should
22	this committee consider in order to make it effective for the
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1 next 40 years? And I guess those that participated maybe can 2 answer that question. 3 Mr. Prager. You know, as the -- as the energy markets evolve, the best thing to do is let them evolve and to no 4 5 longer have these kind of forced mandates over the top of the 6 energy markets. 7 States do a great job in terms of protecting the reliability of the -- of the grid. They do a great job in 8 terms of protecting the cost effectiveness of it. There's 9 lots of market opportunities out there right now. 10 11 There's lots of least cost resource planning. The best 12 thing that could happen would be for PURPA to get out of the 13 way and that is really the ultimate advocacy that we are 14 supporting. 15 Mr. Kinzinger. Thank you. And Ms. Raper, do you have anything to say on that at 16 17 all, in terms of what we should consider? Ms. Raper. I don't -- I mean, I would -- although I 18 don't want to disagree with Mr. Prager but I don't think 19 20 PURPA is the worst thing on the planet. I think it's being abused. And so I think that if we 21 22 removed the abuse -- I mean, Idaho's been implementing PURPA **NEAL R. GROSS** 

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for -- since the early '80s and there was not a problem until 1 2 the last decade when the large generators coming in and 3 gaming the system, were manipulating the loopholes in the act, complying with the letter but not the intent of the act. 4 5 And I do agree that there is a balance of what Mr. Glass 6 and Mr. Prager said and that is that you put too many 7 renewables and QFs on the system and you actually create a worse environment for them. 8 We believe in distributed generation and the value of 9 distributed generation and keeping the grid consistent and 10 11 reliable as well. 12 Thank you. Thanks to all of you. Mr. Kinzinger. Ι 13 yield back. 14 Mr. Walberg. Thank you. Gentleman's time has expired. 15 Now I recognize the gentleman from California, Mr. 16 McNerney. 17 Mr. McNerney. I thank the chairman. I thank the witnesses for coming here today. Interesting testimony and 18 informative. 19 20 I got a couple of things out of your testimonies, some 21 ways to improve PURPA. One is to improve the one-mile rule 22 and to allow states to address gaming. I think that was Ms. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1 Raper and Mr. Thomas. Thank you. 2 Subsidies are not included in contract negotiations --3 Mr. Thomas. Large gifts should be -- should sell power more competitively -- Mr. Kouba -- and the need to add QFs to 4 integrated resource planning. Am I mistaken or am I 5 6 misinterpreting what anyone said on those -- those comments? 7 No? I think PURPA can be revised to encourage low-emission 8 or zero-emission -- carbon emission without increasing cost 9 to consumers. Does anyone disagree with that? 10 11 Sure. Go ahead. 12 Ms. Raper. If I can just qualify that. I think that 13 that is possible. But I know that Idaho has taken a lot of 14 criticism for their two-year contracts and part of what Mr. 15 Glass is talking about about a correct avoided cost it may be 16 a correct avoided cost right now with -- based on the factors 17 that you use to predict what that avoided cost ought to be. 18 But the longer the term of the contract because we are in a volatile energy market and it is always volatile, the 19 longer the contract the more disparity there will be between 20 21 actual avoided cost and what the utility is paying those. 22 So 20-year contracts, in our opinion, are never going to

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be representative in the end of what the incremental cost to 1 2 the utility is. 3 Mr. McNerney. Well, that may be true. But as a small 4 power producer, it is almost impossible to get financing without some sort of long-term guarantee or contract. 5 6 Ms. Raper. May I address that, Congressman? 7 Mr. McNerney. Yes. Ms. Raper. It's our opinion that as long as PURPA 8 exists and there is a must-purchase obligation there that the 9 utility has to take that energy, then there is something 10 11 reliable to go and get financing based on you show them the 12 federal act that says that the utility has to take this 13 energy on an ongoing basis or the modification that can be 14 made. 15 As we read PURPA now, it says that the cost of that 16 power is either determined at the time that the contract is 17 entered into or upon delivery of the energy. So to us, if you have a 20-year contract, you determine 18 at the time the contract is entered into what that avoided 19 cost would be. All we tried to do with --20 21 Mr. McNerney. But, I mean, that is a risk to you and 22 also just a kind of a risk to the power producer because **NEAL R. GROSS** 

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costs may go up, in which case the power producer is stuck at 1 a lower cost. 2 3 I mean, that is just futures gaming. Whether it's the 4 utility or the producer, you are both taking a risk. Yes? 5 Mr. Kouba. Yes, could I comment on that? 6 Mr. McNerney. Sure. 7 Mr. Kouba. When we go to add resources at our utility and we walk into the Iowa Utility Board to get those approved 8 for 20 years, 25 years, 30 years, we come in there with a 9 whole study for that time period with various scenarios on 10 11 what happens if gas prices change, what happens if an 12 environment rule changes, carbon taxes change. 13 So we have the whole gamut of scenarios for 20, 25, 30 years that then they can look at and say yes, this is still a 14 15 good decision to add this resource over all that -- those scenarios for 20, 25, years. 16 17 That's not the case with these folks gaming the system. They come in with no 20-year plan showing that is going to be 18 beneficial to customers. 19 20 Mr. McNerney. Right. Well, I mean, that is one of the 21 improvements that I think could be made is eliminating the 22 game -- giving states some ability to fight gaming. Mr. **NEAL R. GROSS** 

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Glass.

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2 Mr. Glass. Congressman, I would say if they are doing 3 that analysis and they know what the long-term costs are, use that to set your voided costs. It's very simple. 4 There's no reason why when you are entering into a 20-5 6 year PPA as utility that you would use a different set of 7 data than your avoided cost. We need to be able to have -in order to develop and finance a solo project or any 8 independent power contract you need a long-term stream of 9 10 revenues. 11 You cannot depend upon the market price in any part of 12 this country. Merchant generation in this country is dwindling. There's very little of it actually happening, 13 14 especially outside organized markets where you can't 15 effectively hedge against such things. 16 To allow only two-year contracts or to require these 17 people to ride the market means the end of PURPA QF contracts and it means the end of independent power. 18 Mr. McNerney. Right. No, I understand and I agree with 19 20 that. 21 How does storage affect PURPA's viability as a long-term requirement as a -- as a regulation? Yes. 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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Mr. Glass. Right now storage is not specifically 1 2 contemplated in PURPA or in the implementing regulations, to 3 my knowledge. I would say this. 4 PURPA was actually -- and the implementing regulations 5 were very sensitive to the difference between energy and 6 capacity and also the other ancillary services that these 7 types of resources can build. I would simply put it this way. Get more sophisticated 8 about the avoided costs. Get sophisticated about the energy, 9 the capacity, and if it makes sense to build in, you know, a 10 11 financing way, to build and install battery we'll build it 12 and there's greater capabilities that will come with getting 13 compensated with that. 14 Mr. Walberg. Thank you. The gentleman's time has 15 expired. 16 Mr. McNerney. I was about to say that. 17 Mr. Walberg. And we got -- we have got votes coming. We are trying to move it on a little bit, and so now I 18 recognize the gentleman from the inspiring state of Texas, 19 20 Mr. Barton. 21 Mr. Barton. Thank you, Mr. Chairman. I will be, I 22 think, relatively brief.

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1	I didn't hear the opening statements of the panel. But
2	in answer to Mr. Kinzinger's questions, Mr. Prager, does your
3	company support repeal of PURPA?
4	Mr. Prager. We provided several different options in
5	the end of my written testimony. But one of them is yes, we
6	would support the repeal of the Section 210 requirements
7	under PURPA for a forced purchase.
8	Mr. Barton. I am open to that, and I wasn't here in
9	'78, believe it or not, but I got here in '84, and we thought
10	about repealing it in the Energy Policy Act of 2005. We did
11	add or change it, which the FERC implemented in Order 688.
12	Mr. Glass, you could you tell me what the average
13	size of a of a solar plant is today?
14	Mr. Glass. The average size of a PURPA
15	Mr. Barton. New construction.
16	Mr. Glass. Yes. The average size of a PURPA solar
17	project is eight to 10 megawatts in total. There are some
18	larger and there are, obviously, smaller as well. But for
19	PURPA projects it's usually in that range.
20	Mr. Barton. Well, I appreciate that. But just the
21	if it is not PURPA, what what does the economics of solar
22	today indicate the optimum size is? I would think it would
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1	be larger than that. But maybe not.
2	Mr. Glass. Yes. I think for a utility scale solar, I
3	would say the average is now north of 50 megawatts. I think
4	for commercial and industrial there's different you know,
5	when you are on a flat rooftop there's a different
6	optimization for, obviously, residential. You're talking,
7	like
8	Mr. Barton. Right.
9	Mr. Glass five or six kW.
10	Mr. Barton. Ms. Raper, you may be the best person on
11	this, since you are a public utilities commissioner. Texas
12	has an open access, you know, market system in ERCOT. We
13	deregulated our power generation.
14	Do you believe, and you may not know this, but
15	nationally is there a problem for these so-called facilities
16	getting access to the grid? There was a concern in the '70s
17	that there since you had everything was regulated and
18	integrated that there might be.
19	But in today's market is that still a problem?
20	Ms. Raper. Thank you, Congressman, for the question. I
21	think that there is not a problem for large facilities
22	large QFs to have access.
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1 I do believe that there are still co-generation facilities and other small -- we have run-of-river hydro that 2 3 come in under as a QF resource and I believe that those are 4 entitled to those published standard rates that PURPA talks 5 about. 6 But no, I think that you get to 10 megawatt, 20 megawatt 7 and I think it is insincere for Mr. Glass to represent that the average size is 10 megawatts for a QF. 8 The average size is 10 megawatts for a QF because the 9 100 megawatt disaggregated in order to become 10 of those. 10 11 So yes, I think that -- I think it's proven through the 12 Energy Policy Act of 2005 and the modifications that Congress 13 made that there is access in a competitive market for those 14 larger QF facilities. 15 Mr. Barton. I haven't talked to the -- to the chairman or the ranking member so I recall don't know where the will 16 17 of this subcommittee is on this issue. But if you assume that we're not going to repeal PURPA 18 which, again I would be open to, but you wanted to reform it, 19 is the 80 megawatts standard for a QF and then the 20-watt 20 21 megawatts standard under FERC's 688, are those still valid or 22 should those be changed? And I will let anybody take a pop **NEAL R. GROSS** 

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99 1 at that. Mr. Kouba. We are advocating to lower that 20-megawatt 2 3 limit down to two megawatts. 4 Mr. Barton. Two. Okay. 5 Mr. Baas. And I would disagree. I believe that 6 facilities like ours have a very difficult time moving 7 electricity to the grid competitively. Twenty megawatts at a minimum and for waste energy facilities 20 to 80 would be 8 9 very helpful. Mr. Prager. And, Congressman, we would support reducing 10 the 80-megawatt limit down and make it consistent with the 11 12 limit that is associated with competitive markets across the 13 country, especially for states that have competitive least-14 cost resource planning. 15 Mr. Barton. Thank you, Mr. Chairman. 16 Mr. Walberg. I thank the gentleman. 17 I now recognize another proud Texas, Mr. Flores. 18 Mr. Flores. Okay. I want to thank the chairman for hosting this informative hearing and also thank you, panel, 19 for your excellent testimony. 20 21 Three quick questions, if we can. It seems to me like 22 state policies are driving the growth and renewable

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1	generation. They've got renewable portfolio standards tax
2	credits, competitive procurement requirements, net metering
3	are just a few of those policies.
4	So two questions out of that statement. The first one
5	is can we even determine if PURPA's mandatory purchase
6	requirements under Section 210 are still a factor in driving
7	renewable generation as opposed to the state renewable
8	policy?
9	So Mr. Baas, I will start with you.
10	Mr. Baas. The state policies certainly help, but the
11	federal PURPA requirements I think really enhance and provide
12	that umbrella framework for the states to operate.
13	Mr. Flores. Which do you think is having a greater
14	impact today?
15	Mr. Baas. PURPA.
16	Mr. Flores. Okay. Mr. Kouba.
17	Mr. Kouba. In Iowa, there is no doubt that PURPA
18	facilities aren't driving renewable growth. It is the
19	utilities driving renewable growth and other many other
20	independent power producers driving renewable growth, and we
21	can take advantage of those independent power producers
22	through very competitive RFPs and PPAs and certainly with our
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1 own facilities.

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2 We go through RFP processes that make very competitive 3 prices for those projects. So definitely being driven by 4 utilities right now and independent power producers. 5 Mr. Flores. Mr. Thomas.

6 Mr. Thomas. Thank you. We believe PURPA has had, you 7 know, a great impact on us. We would not be nearly as 8 competitive in manufacturing without their ability. I can't 9 think of an example where PURPA was used, you know, with a 10 hammer for us to be able to do this.

11 Most of the time, we work through with the state or with 12 the utilities and come up with a negotiated contract. But 13 PURPA's presence is important and it kind of enables that.

Mr. Flores. Okay. Ms. Raper.

Ms. Raper. Thank you, Congressman.

I think initially PURPA drove some of the renewables that came onto the market. It assisted in people wanting to invest in things like wind and solar and geothermal. But I don't think that it's the driving force anymore for getting renewables on the system.

21 Mr. Flores. Mr. Glass.

Mr. Glass. As my testimony -- I detailed in my

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1	testimony roughly 20 percent of all the solar installation
2	that was installed in the U.S. last year was based upon
3	PURPA-developed contracts.
4	So it was significant. And I would say for the other 80
5	percent, PURPA is a very important backstop in case the other
6	end of the offtake contract goes away. Financiers depend
7	upon PURPA as that backstop as Plan B.
8	Mr. Flores. Mr. Prager.
9	Mr. Prager. The vast majority, over 95 percent, of the
10	renewable energy on our system, which is, again, the largest
11	renewable wind energy provider in the country, comes as a
12	result of state policies, low costs, and market forces. It's
13	not because of PURPA.
14	Mr. Flores. Okay. Thank you.
15	Did I really get five minutes at the beginning?
16	Mr. Walberg. You sure did.
17	Mr. Flores. Somebody cheated me on the clock.
18	Anyway, I yield back the balance of my time.
19	Mr. Walberg. We took care of the cheat and gave you, in
20	fact, a little bit more in the end. So
21	Mr. Flores. So do I need can I keep going?
22	Mr. Walberg. No, no, no. You're
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[Laughter.]

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2 It's always worth a try, though. I appreciate very much 3 the hearing today and I appreciate the fact -- I recognize myself -- appreciated the fact that four out of six of the 4 panellists also indicated that they were open to tweaking, 5 6 reforming, altering, amending the process and over the last 7 few months I've been drafting the PURPA Modernization Act of 2017. 8 I believe that PURPA is ripe for reform and, if done 9

10 correctly, it will increase competition, lower utility bills 11 for our constituents, and ultimately promote grid 12 reliability. I am excited to work with this committee to 13 bring about nearly four years of law into a change for the 14 21st century, if we can do that.

15 I want to thank the witnesses for being here and great 16 to have a Michigander here as well, Mr. Baas.

Mr. Prager, in your testimony, you mentioned that PURPA's mandatory purchase obligation is hindering Xcel's ability to properly undertake critical resource planning. Can you please elaborate on this and how it's negatively

21 impacting your customers, and additionally, do you think that 22 it would be beneficial if states were given mandatory

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## purchase obligation waiver authority?

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Mr. Prager. I do think it would be beneficial. States are doing an excellent job right now in making sure that they manage their resource plans, do it cost effectively and achieve these energy policy goals, including some very aggressive -- unbelievably aggressive goals for renewable energy development.

8 My testimony does talk in some detail -- my written 9 testimony -- about some of our experiences, especially the 10 experience that I indicated in Colorado where we are actually 11 adding in over -- we are being asked to add in a gigawatt and 12 a half of renewable energy that we haven't planned for, that 13 we haven't sited, that we haven't put through the process.

14 That gigawatt and a half of QF facilities, if they come 15 in, will completely disrupt our resource planning and will 16 raise customer costs and it threatens the reliability of our 17 system.

18 Mr. Walberg. Okay. Ms. Raper, would you care to add 19 anything?

20 Ms. Raper. Amen. I --

21 Mr. Walberg. That's fine.

Ms. Raper. Thank you, Congressman. I agree. Without

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1 being able to plan for the resources for QFs when they come 2 on, then it adversely impacts the utility's ability to plan, 3 going forward. 4 And we have seen that in our state with the way the 5 integrated resource plans are submitted every two years. 6 There are swings now instead of tweaks to those integrated 7 resource plans and that is a problem. It impacts investment. Mr. Walberg. It's a challenge. Yes. 8 9 Mr. Prager, you noted that Xcel is the number-one utility provider for wind. You've also touched on the fact 10 11 that QFs do not face the market competition other IPPs are 12 subject to. 13 Do you believe that PURPA is counterproductive to renewable electricity competition and is keeping your 14 15 customers from enjoying the technological advancements made in renewable generation such as wind? 16 17 Mr. Prager. We think it's very important when you bring any resource onto the system including renewable energy. You 18 do it cost effectively. You do it in a way that results in 19 20 low-cost reliable power for your customers. 21 We have been able to do that outside of the PURPA 22 process. PURPA is not consistent with the way that states **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1	are currently doing the resource planning that allows us to
2	bring in that power on a cost-effective and reliable basis.
3	So yes, I would agree with that statement.
4	Mr. Walberg. Okay. Mr. Kouba, in your testimony there
5	was some mention of reliability impacts to the system due to
6	the integration of these larger QFs on the distribution
7	system.
8	How does a utility plan for or mitigate these issues
9	and, secondarily, who is ultimately responsible for grid
10	reliability issues the utility or the QF?
11	Mr. Kouba. As a matter of fact, we can't plan for them
12	because these QF facilities now that are being disaggregated
13	and located on our distribution system come in at any given
14	time and we have absolutely no warning.
15	So there is no planning for the future in those cases.
16	It's basically reacting and doing the best we possibly can to
17	ensure that the rest of our customers on that distribution
18	system aren't adversely impacted, and in many cases so far
19	they have been adversely impacted.
20	It's just if you don't take these into the resource
21	planning process, you end up having potentially transmission
22	system impacts.
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We are seeing that now in the distribution system because there's no adequate planning to add those facilities. They come in at a location. They may not actually be needed there, and they do end up causing problems for our customers -- those distribution systems.

6 Mr. Walberg. Okay. Mr. Kouba, you mentioned that there 7 are opportunities for these QFs to integrate into the 8 transmission system. How do they integrate and are some QF 9 developers bypassing these established process in MISO?

10 Mr. Kouba. How they would integrate in the transmission 11 system is very similar to how we integrate a new resource, 12 whether it is wind or combined cycle natural gas in the 13 transmission system.

There is a process in place in MISO to do that. They could walk through that process just like we do and that process helps ensure that as we or QFs or independent power producers are placing generation on the system, we are actually improving the reliability system, not having a detrimental impact on the transmission system.

20 So they could follow that process just as we do. I 21 think what they are finding is it is a bit of a cumbersome 22 process. It takes some time.

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1	There may be transmission system additions that are
2	needed that are more expensive so they disaggregate in our
3	case, in Iowa and put them down in the distribution system
4	where they don't have to deal with that and don't have to
5	deal with the cost of transmission system upgrades.
6	Mr. Walberg. Well, thank you. My time is expired.
7	And I guess I guess I am not the last one. And now I
8	represent recognize my friend from New York that somehow
9	got behind me. Mr. Tonko.
10	Mr. Tonko. Thank you, and if you want to represent me
11	too you can do that.
12	Mr. Walberg. I'd be delighted to. Couldn't work well,
13	though.
14	Mr. Tonko. All right. Thank you. Thank you.
15	Let me thank the witnesses for joining us this morning
16	because it's such an important bit of discussion.
17	Mr. Thomas, I am a big supporter of CHP. With the
18	recent devastation of Hurricane Harvey and other massive
19	storms that are predicted to happen more and more if we don't
20	address climate change, I am concerned about where how we
21	come back from these storms.
22	I think back to my home state of New York and the damage
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caused by Superstorm Sandy. During Sandy, we saw, you know, 1 2 in that whole experience the resiliency of the CHP 3 facilities. In some places, electricity was down for days 4 but CHP kept working. 5 So has PURPA been successful in bringing more CHP 6 facilities online? 7 Mr. Thomas. Yes. I think the easy answer is absolutely. It gives -- the difference with the CHP facility 8 and just the straight manufacturing is you make additional 9 and large capital investment in the generation. 10 11 So knowing that you can recoup that over the length of 12 the period -- you know, 20 years or so -- gives us the 13 confidence to install that generation and make that a CHP 14 facility versus just a straight load manufacturing facility. 15 Mr. Tonko. And can you discuss whether there might be a need to address some definitional or threshold issues with 16 17 the law? For example, your testimony mentions that many CHP facilities export very little electricity to the grid. 18 Does it make sense to reclassify the size of a CHP 19 20 installation based on the amount that is generally exported 21 to the grid rather than what its overall capacity might be 22 ranked? **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1	Mr. Thomas. Yes, and thank you for your question. You
2	know, a lot of times we talk about megawatts when we talk
3	about the PURPA numbers you know, 20 or 80 and for us
4	it's more about the amount of energy, not the megawatts
5	because our facilities may look like they can net export 20
6	megawatts, let us say, but we seldom do that because we match
7	the steam load with what we need from manufacturing.
8	So, you know, we think an energy number is a better way
9	to do that. But, you know, leave it in place. Just change
10	it from measuring absolute capacity to measuring the amount
11	of power that is put on the grid.
12	Mr. Tonko. Thank you.
13	Mr. Glass, can you explain the relationship between
14	smaller solar projects, those residential or community
15	projects, and those of utilities and the need for standard
16	and expedient interconnection processes?
17	Mr. Glass. Great question. All three levels utility
18	scale, commercial and industrial, as well as residential all
19	need very clear straightforward paths to interconnection and
20	where that interconnection creates costs on the utility
21	the interconnecting utility, those costs ought to be worked
22	out and be dealt with so that the cost cause are at pace for

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1 those types of things.

2 SEIA is completely, you know, supportive of that type of 3 thing. However, the one thing I would say is that we need to 4 make sure that these smaller types of facilities can 5 efficiently plug in.

6 It would seem that the panel is most, you know, 7 enamoured of the centrally-planned utility model that we had 8 back in the '60s where there would be no small scruffy co-9 generator or small energy producer of solar or anything like 10 that that would come interconnected and mess with their 11 plans.

Unfortunately, that very competition I think has been very successful in helping to bring down costs over time and I would encourage -- whether it be interconnection I would request that the utility still be required to have that competitive disruptiveness of smaller generation facilities such as solar.

18 Mr. Tonko. Now, does PURPA play a role in ensuring that 19 there are nondiscriminatory interconnection processes? 20 Mr. Glass. Absolutely. It's the bedrock. I mean, if 21 there was no PURPA there wouldn't have been an EP Act 1992 22 and an Order 888 and all of the things leading to the New

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1 York rev process that is going on right now. We've been 2 increasing competition since 1978 and we ought to continue to 3 do so. 4 Mr. Tonko. And I would ask that, and so it is important to the future of the solar industry that we move forward with 5 6 these sort of opportunities with interconnection? 7 Mr. Glass. Absolutely. Mr. Tonko. And I understand a number of witnesses 8 represent utilities or facilities in deregulated electric 9 10 markets. 11 But you have member companies selling and installing 12 solar projects all across the country. Is PURPA still important to bring competition and generation diversity to 13 14 areas that have retained the vertically stacked integrated 15 utilities? 16 Mr. Glass. Yes. It's vital in both markets. I would 17 say that a number of -- well, a third of the load of the country is still in what we call vertically integrated 18 utility -- monopoly utility systems and then a third -- the 19 other two-thirds are in the New England -- it is ERCOT and 20 21 California to a lesser extent. 22 There are different systems that apply and there is

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1 solar going in in both. I would say that PURPA is important across all of them for the market access, the transmission, 2 3 the interconnection that you were just mentioning but also as 4 the financial backstop so that people can get the financial certainty of the stream of revenues over time to be able to 5 6 finance these projects. So it is vital. 7 Mr. Tonko. Thank you, and thank you again to all of our witnesses. 8 Mr. Chair, I yield back. 9 10 Mr. Walberg. Thank you, Mr. Tonko, and again, apologies 11 for looking right past you. Sorry about that. 12 Making sure I am looking around, I see no other further members wishing to ask questions. I would like to thank all 13 14 of the witnesses again for being here today. 15 We appreciate this and I certainly hope that we will continue these discussions. It's important -- it is an 16 17 important topic and it is important for energy. Before we conclude, I'd like to ask for unanimous 18 consent to submit two documents -- two letters dated 19 September 5th, the first from Cypress Creek Renewables, the 20 21 second from Northwest and Intermountain Power Producers 22 coalition -- for the record.

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Hearing no objection, they will be submitted for the
record.
[The information follows:]
*******COMMITTEE INSERT 7*******
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Mr. Walberg. Pursuant to committee rules, I remind
 members that they have 10 business days to submit additional
 questions for the record and I ask that the witnesses submit
 their response within 10 business days upon receipt of the
 questions.
 So without objection, the subcommittee is adjourned.

[Whereupon, at 12:02 p.m., the meeting was adjourned.]