

Chairman Jon Wellinghoff on C-SPAN's Washington Journal with Libby Casey

Libby Casey: Jon Wellinghoff is Chairman of the Federal Energy Regulatory Commission or FERC. Thank you for being here sir.

Jon Wellinghoff: Thank you Libby

Libby Casey: The Baltimore Sun has this headline "Electricity cop flexes power." Electricity cop, that's what they call you. What does FERC do? What do you do?

Jon Wellinghoff: Well we do a lot of things. One of the things we *do* do is we are the cop on the beat for the wholesale energy markets both the gas and electric markets, we are charged by congress to enforce the laws to ensure there's no manipulation or fraud in the markets and we've got a great shop that does that. About 200 people headed by a former U.S. attorney. One of his deputies is a former council for the FBI so we have some people who have great experience in that area and law enforcement to go after market traders and others who may decide they want to be the smartest person in the room and we try to do what we can to ensure that we are smarter and I think we're doing a great job there.

Libby Casey: Where do you fall in terms of the hierarchy or pyramid of U.S. Government? How independent are you? Do you answer to anyone?

Jon Wellinghoff: We are very independent. FERC is a five person agency that is an independent regulatory entity. I am nominated by the President and confirmed by the Senate. We do have oversight by both the Senate and the House committees but beyond that we don't report to any other federal agency or anyone within the administration per se outside of those nominations and confirmations.

Libby Casey: Here's what the Baltimore Sun writes about our guest Jon Wellinghoff. "An obscure Federal regulator of electricity markets has emerged as a tough cop on the beat taking on Wall Street banks and big energy firms for market manipulation. The aggressive approach stands out when it's compared with that of the regulator in charge of looking for manipulation in the oil and gasoline markets," so Where does your jurisdiction end and where do other agencies pick up?

Jon Wellinghoff: We are over the natural gas and the electric markets and that's really where our jurisdiction ends primarily those physical markets although we do have some ability to go into the financial aspects of those markets as well because they are interdependent. But we actually do a lot more than act as the cop on the beat as well. We actually set the market rules for all and the structure to those markets so we can help do things like integrate renewables and integrate energy efficiency and demand response in the markets as well as more traditional resources like coal and natural gas and nuclear power.

Libby Casey: Politico reports you announced your resignation. You have plans to step down. Why?

Jon Wellinghoff: Well, I've been there a long time - I've been there seven years which is a long time for a FERC commissioner. I've actually been the Chairman for four years and I think it's time to move on, look for other opportunities and sort of turn it over to the next group.

Libby Casey: And why now?

Jon Wellinghoff: I think it's a good time now. We just finished our Order 1000 which is a very large rule on transmission planning. We've also finished a number of other rules on demand response and regulation service that sets some market parameters that I think are going to help new and innovative technologies come into the market so I've done a lot there and I think it's time to turn it over to a new class.

Libby Casey: Back in 2005 Congress gave you new anti-manipulation authority. Why and what did that allow you to do that FERC couldn't do before?

Jon Wellinghoff: Well that all came out of the Enron crisis in 2001. In 2005 Congress recognized that no agency really had specific fraud manipulation authority over the electric and gas markets. In addition FERC had very small penalty authority. Our penalty authorities were only \$10,000 per day so they increased those to \$1,000,000 per day per violation. So they added the fraud and manipulation authority specifically we had to, for that, go into our general authority and they put in various increased penalties with those two things ultimately gave us the tools we needed to then start putting together the department, the Office of Enforcement that we have that can effectively enforce the rules in these markets.

Libby Casey: Senator Maria Cantwell, democrat of Washington State has given you and FERC kudos and says it's doing it's job in un-earthing these things and working on this manipulation or ferreting out the manipulation. How so, what have you done? Why is it different?

Jon Wellinghoff: Well it's different because we do now have over 200 people that work in this area now. Back in the Enron days FERC had I think less than 10 people so we have a much expanded staff. We in addition have a division of analytics that we just put into place. I call them my geeks and quants - the people who really dig into all the data and can look for patterns and look for things going on that are anomalies so we can really delve into what's going on in the markets and discover people trying to do things that would throw the markets out of whack and into a tailspin. And we don't want to do that. We want people who have confidence in these markets we want to ensure that these markets are well policed and we want to ensure that they are fair, open and transparent. If we can do that we can expand the markets and by doing that we can ensure efficiency and lower costs for consumers.

Libby Casey: Jon Wellinghoff is Chairman of FERC, the Federal Energy Regulatory Commission. The Baltimore Sun calls him the Nation's electricity cop. If you'd like to talk to him, democrats can call (202) 585-3880, republicans (202) 585-3881, independents (202) 585-3882. How is the commission paid for?

Jon Wellinghoff: We're paid for by fees. We're not paid for out of the federal budget. We're paid for by fees on users, so all the wholesale users of the system pay in fees into the system and that constitutes our budget of about a 300 Million per year budget. Although I will say that we've already collected over that amount in fines from our enforcement actions so we almost pay for ourselves.

Libby Casey: What are the fines given for? How does that work?

Jon Wellinghoff: Well the fines are for things like fraud manipulation. There was a settlement for example recently in a very large case Constellation Energy is one of the entities. We did settle a case and believed that there were issues with respect to their activities in the market. They settled for a very large amount - over 200 million dollars ultimately in that one particular case.

So the intent of the fines is to do two things. (1) Deterrent to conduct; It's got to be a big enough fine so that it hurts and (2) To pay back the amount they extracted out of the markets. So we have the penalties and we also have the restitution as well.

Libby Casey: Some details about FERC, the Federal Energy Regulatory Commission. It is an independent agency as our guest the chairman mentioned. The 2013 budget was about \$306 Million (entirely offset by fees) and we're looking at an upcoming budget of about 2 million dollars below that. It's got about 1500 employees primarily here in the Washington, DC metro area. Let's go to a Dallas, TX call. Aaron is on our independent line. Hi Aaron.

Caller Aaron: Hello. I was going to ask your guest what are his views on developing renewable energy for the consumer market like the end user like private individuals in their own homes?

Jon Wellinghoff: That's a good question Aaron. The development of solar energy for example at a distributed level for consumers is booming in this country. And it's going to have an effect on our wholesale markets because the people who run the wholesale markets are going to have to know more about how consumers are generating their own power so we can integrate the two together. I think it's a very good thing and consumers really want it especially in light of a lot of the climactic events we've seen like hurricane Sandy and others. They want more control and so I think we're going to see a continued expansion of solar photovoltaic systems in homes and businesses, but we're going to have to integrate better with the larger grid and because we have better communications now and better technology to do that I think it's going to be much easier to do in the future.

Libby Casey: On twitter one of our followers @boringfileclerk writes in and asks "what enforcement powers do you have to fine those who manipulate energy prices."

Jon Wellinghoff: Well we have very extensive enforcement powers. Anyone who does manipulate energy prices in the wholesale gas or electric markets we can go after, we have done that. We have number of cases that we've settled and we've got a number of cases pending and I think we're actually doing it very effectively in the sense that I think we're corralling in a good portion of what fraud there is out there and I think we're seeing a lot less now certainly than we did see back in the Enron days so I think we can have confidence in these markets going forward.

Libby Casey: Bethesda, Maryland. Fred is a democrat. Hi Fred.

Caller Fred: Hi. In the eighties Jon you wrote a book called Least Cost Utility Planning when you were the consumer advocate when you were in Nevada. I'm wondering now that you've overseen FERC do you see that is it's applicable to the whole country?

Jon Wellinghoff: Fred you've been doing some research I can tell. I did, in fact. I authored a statute in Nevada on least cost utility planning and help put statutes in in a number of other countries - excuse me - other states, about 17 other states. Least cost planning and planning for our future in utilities is very important. I think it is applicable to the country. We're doing some planning in our order 1000 is not exactly the same. It's more transmission planning but we have to put both state planning and federal planning together in an organized hole because we're seeing more regional development of things like solar and wind in areas where those types of resources are very economically attractive and we want to deliver it to loads mostly on the coasts and solar is mostly in the southwest of the country, wind is in the

central part of the country. So I think that kind of planning on a cooperative basis between the states that are doing it and the federal government that's doing the planning of the transmission under order 1000 is very important.

Libby Casey: Our Caller from Bethesda mentioned that your background is as a consumer advocate in Nevada. You had the backing of senate majority leader Harry Reid to come in and take a position at FERC to fill in a vacant seat. What did it entail to be a consumer advocate and how is that specific to the west would being a consumer advocate for an eastern state or midwestern state be different?

Jon Wellinghoff: Not really Libby. The consumer advocates position is one to represent the people before their state utility commissions and also before FERC, I did do some cases before FERC in that regard, and ensure that rates are reasonable to those consumers and also ensure that things like energy efficiency and renewables are integrated into the system in a way that consumers can take advantage of those new resources. So that's really what I did in Nevada. I wrote a number of laws including the least cost utility planning act that our previous caller referred to and in doing that represented consumers to try to ensure that their costs can be controlled and that they have choice and ability to look at the number of new technologies that are in the energy sector and take advantage of them.

Libby Casey: Federal Energy Regulatory Commission Chairman Jon Wellinghoff is our guest. Let's hear from John in Ellicott City, MD who is a republican. John, good morning. One last try for Ellicott City. We'll move on to Dean out in Dayton, OH on our democrats line. Hi Dean.

Caller Dean: Hi. How are you

Libby Casey: Good.

Caller Dean: I'm just commenting on the price of gas. Towards the beginning of the month they tend to raise the prices which make it more expensive for the government recipients of federally supplemented programs. If you've noticed over the past couple of years this has happened all the way through where towards the middle of the month prices tend to drop and then especially toward the end of the month they raise them again. So there's got to be some type of control at the pumps for the prices where this is very apparent that this is out of control with this price fixing. Thank you.

Libby Casey: Thanks Dean. Chairman Wellinghoff, reflect on Dean's comments and explain the difference between what FERC does between that and the Federal Trade Commission.

Jon Wellinghoff: Certainly. Dean you're referring to gasoline for cars and trucks. We oversee not that commodity, but instead, natural gas that heats your homes and businesses and powers power plants. We also oversee the electric markets. I don't disagree with you though that certainly we all wonder about how gasoline prices change monthly and yearly and what controls there are but that's not the purview of our particular agency.

Libby Casey: You mention natural gas. Fracking is getting a lot of attention in states like Pennsylvania. Should anyone, the Department of Energy or FERC undertake a comprehensive environmental look at the impact of fracking to produce gas that does either stay here domestically or gets exported?

Jon Wellinghoff: Fracking is something that needs to be done in an environmentally correct way. It's not again the responsibility of our agency - of the FERC - primarily the responsibility of the EPA and also of the state agencies as well. I think it's an attractive resource for our country. It's one that's necessary for our country. But I think it can be done in an environmentally responsible way. There's no question we can develop this gas and do it in a way that doesn't hurt the environment.

Libby Casey: Joan in Murrayville, IL on the democrats line, Hi.

Caller Joan: Hi, I guess my question is kind of a little bit of a gripe too. And I want to thank you to C-SPAN. I live in the country so I'm on Illinois Rural Electric and I notice that my electric bill alone - and I don't have an electric house - I just have electricity. Otherwise I just have a gas stove, gas furnace, you know what I mean? My electric bill alone is almost twice what my son's house in town is for gas and electricity. So this month I had a \$135 electric bill and I think his bill in town was something like \$68 for his gas and electric. Also, I got a letter that you could negotiate your rates with different electric companies. I think they even had a vote on it and I can't do that because Illinois Rural Electric opted out and I get really angry when I see these little notes from Rural Electric telling me that the electricity is going to cost me more this month. You know and I - it doesn't seem to go down whereas in town they can negotiate these rates, theirs are going down. I'll get off the line and wait for my answer. Thank you.

Jon Wellinghoff: Certainly we at FERC believe the consumers should have choice both at the wholesale level and the caller is speaking about the retail level and in this instance it appears her particular utility didn't choose to go into the retail open choice competitive options that currently are available in that state so I would encourage her to talk to her utility and her neighbors that are customers of that utility and see if they can't encourage them to provide retail choice to those customers because the thing to the point that the customers do have choice in options of provider in electric and gas service and also the types of options to do things like put on solar and put in energy efficiency, etc. It's going to help them control their energy costs better.

Libby Casey: What's FERC's role in the Keystone Pipeline now and the proposed XL leg of the line?

Jon Wellinghoff: We have none because it is a line that goes across international borders-an international line- it is under the purview of the State Department. All lines within the United States, gas lines that are constructed solely within the United States that are interstate transmission lines for gas, we do permit and certificate but not the Keystone line.

Libby Casey: Do you have a take on it?

Jon Wellinghoff: I do not have a take on it. Secretary Kerry has got to make that decision and it's a tough decision.

Libby Casey: How do you keep pipelines safe? What's the work that FERC does on that front and how does the public become protected both in terms of safe transmission and also sighting and then the product on both ends.

Jon Wellinghoff: It's an important issue. From a stand point of safety we do review safety when those pipelines are going in the ground and we overview the construction and development of those pipeline projects. Once the pipeline is in the ground and operating then the safety responsibilities go over to the

department of transportation and they have very strict regulations in place to ensure that on an ongoing basis the maintenance and safety is uppermost in the operators of those pipelines.

Libby Casey: John Wellinghoff is the Chairman of the FERC, The Federal Energy Regulatory Commission. John is our next caller in Gatt, Pennsylvania, republican. Hi.

Caller John: Hi. A lot of states have come up with a customer choice where you may select your generating company, power company and the delivery system is done by the local power company. This has sort of turned into a scam whereby they send you information where they give you a low rate say for instance in my case they - a company from New York - have a six month rate for 6.8 cents a kilowatt and the current rate for PP&L is 7.8 so you would think it was a good idea to switch so you switch and what happens after the sixth month without any notification or anything I noticed on my bill, my bill was increased by about 30%. Well they just arbitrarily when it goes to variable rates, raised the rate to 10.8 cents a kilowatt and I immediately called them and told them I wanted to cancel my subscription with them. Well they said Mr. Potter it's not that simple. You have to . . .it takes us up to two months to get this generated back to PP&L and so in effect they got their come on rate back by delaying me 2 months of paying these artificially high variable rates and then it switches back to my regular company PP&L they've gotten 3 months of usury rates that wipes out any savings that I saved and my question is how many people don't see this or aren't aware of it and it automatically comes through on their bills and are being gauged by this supposedly power choice plans many states have.

Jon Wellinghoff: Well certainly any consumer commodity where we provide choice there are pitfalls and there are people who will try to take advantage of consumers and that's why we have to have government oversight agencies, the FERC for wholesale rates and in your case Sir I'd recommend that you talk to the state public utilities commission and your state consumer advocate. You have a consumer advocate in Pennsylvania, a very good one. And complain because ultimately the type of switching that you're talking about where you got a rate for six months and weren't notified of a higher rate, you should have been notified of that certainly and I'm sure that regulations in the state of Pennsylvania require that, but we can effectively police these markets so that consumers can have choice. Choice is going to provide for consumers having lower bills over all. I think ultimately the good thing we do have to have appropriate government oversight of that as well.

Libby Casey: Chairman Wellinghoff the Baltimore Sun points out that FERC is as they say "locked in a legal battle with deep pocketed Wall Street bank J.P. Morgan Chase, accusing it of failing to provide accurate information and omitting material information on electricity trading to regulators. The commission ordered the bank to the sidelines of such trading for six months. What kind of a penalty could actually be put onto an entity the size of J.P. Morgan Chase? What could actually hurt a bank of that size?

Jon Wellinghoff: Well I don't want to talk about this specific case because it is currently under investigation, although it's been widely reported. There was a leak of some documents to the New York times, and also we had a discovery dispute in district court here which actually was public so the fact is that the investigation is known, but the penalties we believe should be adequate to ensure that the entity, whoever they may be, a bank or a utility company or whoever is trading the market hurts enough so they don't do it again. So if you're going into a market and you take a hundred million dollars out of it improperly then the fine should be some multiple of that. Certainly beyond that so they know that it's not

just a traffic ticket. It's not just something that will ultimately, they can write off on their bottom line and do again and not fear the economic consequences. They have to see economic consequences and ensure that the consequences are significant enough that it won't occur again.

Libby Casey: Do we know any timeline?

Jon Wellinghoff: We do not know a timeline. This could go on for a long time and depending upon whether the case is settled or whether or not we have to issue an order out of FERC. We haven't issued any order out of FERC on that particular case. And again it's a case under investigation so I can't give you any timeline.

Libby Casey: Let's hear from Russ in Danielson, CT on our democrats line. Hi Russ.

Caller Russ: I just wanted to say, just seeing your appearance, you seem like a pretty serious guy. I'm sorry we're losing you to some other venture; I just wish there were more people like you who are overseeing banking industry, the mortgage industry, and other industries that seem to be taking advantage of the American people. The country would be a lot better. I just applaud you for your demeanor, and you look like a tough guy who gets the job done. I applaud you for that. Thank you very much.

Libby Casey: Hey Russ, before we let you go, before today, did you know much about FERC? Have you followed what the Federal Energy Regulatory Commission does?

Russ: Not really. I just wanted to say that I'm in Eastern Connecticut. My electrical rates, when I ask my wife what the bill is, they are pretty reasonable. We constantly get calls with the people who want us to switch, and I never switch because I already know that game. But I applaud, I think if we have people who are in charge of overlooking these particular industries, who are given a free rein to rein in these individuals, these people who are just trying to scam Americans constantly. If we had people like Jon, with this demeanor, the country would be a lot better off. Thank you very much.

Jon Wellinghoff: That's very kind of you, Russ. Thank you. There are a lot of dedicated federal employees though, and I think it is important that we do have government in a proper role. I think the market is a great thing. I think we need to expand the markets as much as possible, but it doesn't mean that we deregulate them. Doesn't mean the government goes away. You have to have a cop on the beat, you have to have somebody to make sure those markets are fair for consumers.

Libby Casey: We look at news stories like Politico, we mention Politico reporting that you have announced your resignation, you do plan to step down once someone is in taking your place in your seat in FERC, but one of the stories in Politico says that you've "rankled some republican law makers for buffing requests that the agency conduct more analysis on whether EPA air regulations, might threaten the reliability of the power grids. What's that about?

Jon Wellinghoff: We were before congress and number of hearings, discussing with them the EPA regulations that will inevitably require a number of coal plants to be shut down because it would be more economical to shut them down than to invest some additional money to actually to put in the emissions reductions equipment. So this is going to entail some retirements across the country, but we believe those retirements can be done in an orderly fashion with proper planning in part in the plan we're putting in the place of Order 1000, and in the planning also goes on in the states some of the innovative resource lease

cost planning activities there, we believe that there will not be a reliability problem. So we have done the analysis. We've done our analysis and analysis that I think also has been done at the National Electric Regulatory Company, which is an entity that we oversee that looks at reliability, NERC they're called, so they've done the analysis as well, and I think ultimately we feel very confident that these retirements are not going to cause reliability problems for the country.

Libby Casey: Phoenixville, Pennsylvania, Susan, Independent. Hi.

Caller Susan: Hi. John and I applaud you also. Your commission has done so much in China and in the Middle East for upgrading these people's lives. Do you have any new plan for upgrading energy in the U.S., like helping to reduce the high energy cost in the north east that are just killing us, and maybe something like electric cars in every garage?

Jon Wellinghoff: We're certainly concerned about the high energy cost, and we think the best thing to reduce those high energy cost is deliverability of lower cost resources, so that's why the certification of new pipelines to deliver natural gas into north east, we think it's very important. We're also looking at reliability issues for the north east regarding the increased use of natural gas to generate electricity there because of things like emissions requirements and also the lower cost of natural gas. So we think that again opening these markets up, ensuring that consumers have access to those markets, and providing infrastructure, like pipelines and transmission lines that can deliver products to consumers, we are going to help you keep your cost low and help you control those costs.

Libby Casey: Is there a role overseas for FERC?

Jon Wellinghoff: We have some role in a sense that we have had dialogs with the Chinese extensively. In fact we have a memorandum of understanding with the National Energy Agency, which is the Chinese equivalent of DOE, to share and exchange information on things like smart grid, things like high-voltage transmission lines, one thing that they've done very well in their country that we need to look at more in this country. And other things are that they have technologies and other policy ideas that we can share with them and they can share with us.

Libby Casey: Damascus, Pennsylvania, Louise, Democrats line, lots of Pennsylvanians calls this morning. Hi Louise.

Caller Louise: Hi. I'm very concerned about when you say that you run that pipeline. Right now you're running up the pipeline under the Monksville dam in Milford New Jersey. You have one heck of a nerve doing it under the water, the only water available, the mayor is against it, the township is against it, and you come up with this baloney that natural gas is good. It is not good. The pipeline - Professor Engrafia, Dr. Steingrafer and many other professional people have been telling you it can never ever ever be done. And you got one heck of a nerve pushing this crap to us. The pipelines, as well as the well casings, Professor Engrafia has told you they have a horrible, they just break apart. And the corruption, the absolute corruption of this governor who's raping this state and selling everything out. We don't know what a heck to do. The old wells that are drilled are not regulated. I got breast cancer because of you, buddy. And all of your baloney bending friends.

Libby Casey: Louise, just before we get a response from Chairman, what do you attribute your cancer to?

Caller Louise: It's apparently it was from the methane leaking into it, and none of the wells that have been drilled in the past have been regulated and will never be regulated.

Libby Casey: I'm sorry to hear about your illness Louise. So she's talking about methane leaking into water systems. Respond to the concern that she's brought up and then also do you know the pipelines she's talking about in particular?

Jon Wellinghoff: I'm not familiar with the particular pipelines that she's talking about, with the respect of methane leaking into water sources and wells, again, it's not directly under our jurisdiction, it's actually not under our jurisdiction at all. It's under the jurisdiction of either the federal EPA or state environmental protection agencies. But I do again believe that natural gas can be developed responsibly. I would advocate it should be developed responsibly so that there's no leakage and there's no environmental damage to consumers. I would support everything that needs to be done to ensure that.

Libby Casey: A story from the website, njspotlight.com, looking at New Jersey shows us that angry protest fails to stop work on controversial natural gas pipeline. This is in a Delaware River Basin area, looking at something that'll pass from Pennsylvania to New Jersey to New York. Our caller had a lot of passion on this issue. Where does that come from and how do you deal with that as a regulator?

Jon Wellinghoff: Well, there's passion anytime that you have this infrastructure that is closely sided and associated with consumers. I mean one area we can look at is transmission lines. As difficult it is to side a transmission line in this country, the one thing we don't have jurisdiction, FERC does not have jurisdiction on siting transmission lines, but we know that consumers are very concerned about those lines. And it can be about gas lines in some extent although they are not as intrusive as transmission line. But we have to recognize though there are trade-offs we have to make to ensure that we can have the quality of life and standard of living we have in this country with this infrastructure does have to be built, but it doesn't mean it can't be built responsibly. Doesn't mean it can't be built in an environmentally sensitive way to ensure we minimize the damage and mitigate any impacts to local communities. We try to do that in every instance when we are putting in infrastructure and we do have the authority to do that like with pipelines.

Libby Casey: Michael joins us from Salisbury, IN on the republicans line. You're talking to FERC Chairman Jon Wellinghoff. Go ahead Michael.

Caller Michael: I was wondering, I'm buying a Chevy Volt today and you're talking about improving the infrastructure. I'm just curious what you would think or what you see as the future of consumer pricing for electricity in this country? Thanks you.

Jon Wellinghoff: Thank you for that question and I think I see a very good future for consumer pricing because consumers are going to have choices. Things like the Chevy Volt plugin electric car ultimately can be used to not only provide you transportation and transporting your family around, but in addition to that the batteries in that car can be used to provide services to the grid which can help you lower your costs. There's people for example at the University of Delaware, a gentleman there by the name of Willet Kimpton, who has pioneered a new technique that can actually use the batteries from electric cars at night while they're charging to actually provide grid services back to the grid, what they call regulation service and pay the consumer to do that so in essence you get a free charge. so there's opportunities with these

new technologies and I think the more we can make these opportunities available through expanded markets and innovation we can I think control costs for consumers so I see a very bright future for our ability to have affordable, reliable energy throughout the country.

Libby Casey: Tell us more about the potential for a smart grid and what FERC's role in that would be.

Jon Wellinghoff: We have a large role in that because we do create the structure for these wholesale markets and we've done things like ensure that not only do you have access in those wholesale markets to nontraditional supply resources like wind and solar but that you also have access to things like demand response which means consumers changing their demand at different times of day when the grid operator asks them to do so and in response to that they get paid to do it. So right here in the mid-Atlantic area where DC is. Maryland, New Jersey, there's a grid operator that we oversee called PJM that stands for Pennsylvania, Jersey, Maryland, and that grid operator has something like 1500 Megawatts of demand response. Like 15 large nuclear power plants worth of that resource that they can put in the grid and the effect of that is to lower rates for consumers real time for wholesale prices. The smart grid is very important because those types of resources number one would not be available without the rules we put in place that allow them to bid into the market and number two wouldn't be available without the technology that we have to communicate from the consumers to the grid to let the grid know that consumers are actually providing those resources to the grid.

Libby Casey: What do you personally see is the future of a smart grid and how to make it strong and not vulnerable to say cyber-attack or other major outages and problems?

Jon Wellinghoff: I see the future as being a very distributed grid. I think one of our first callers talked about distributed solar energy and I see a wide expansion of that that will help consumers control their own energy use and cost at local level but those different distributed systems are now all going to be interconnected in a mesh network so instead of having this point to point where we have one large power plant hooking up with a whole host of consumers in a city, you're going to have a whole group of consumers who have their own power plants locally all connecting up to themselves together in a mesh network then connecting out to other resources like centralized wind and solar and conventional plants like natural gas - they'll all be working together as an organized whole. It'll be a much different system with two way communication and two way operations a multiway operation really that we haven't seen ever before.

Libby Casey: Will, Albany, OR independent caller, Hi Will.

Caller Will: Good morning CSPAN, Washington Journal and Libby. I have two questions for Mr. Wellinghoff regarding the natural gas industry I think it's one of the biggest hidden stories in America today that we've achieved energy independence through fracking and other techniques for natural gas production. I'm curious about the market prices. I understand that the department of energy has just allowed another natural gas terminal on the gulf coast to start exporting our abundant natural gas. Does the price go down? It seems that the price for consumers right now should be at its lowest and as we start selling off the excess the supply goes down then the price goes up? Isn't that the way it works?

Jon Wellinghoff: Well in classic economics it does although interestingly enough what im seeing is continued finds of new shale gas availability I'm not sure how much the supply is going down number

one It hasn't really effected prices any of the proposed exports and in fact we havent put any major export facilities in place yet. Number two, those export facilities are going to cost a lot of money to put together and it's going to take a lot of time. And I don't believe that we have or will have the capacity in the near term to export sufficient amounts of natural gas to have a real effect on price as far as making it go up so I think we're going to continue to see supplies increase with new shale findings throughout the country. There's a very large one in California that I wasn't even aware of that I read about the other day. I heard about one in Georgia apparently so we're seeing new availability of gas that we never believed was in existence. In fact when I came to FERC a few years ago almost seven years ago now, no one even knew about the shales we have developed today - if they did know about it they were very undeveloped of natural gas developed and we've increased the amount of natural gas developed over that period of time that short period of time more than 50% so who knows what we'll be able to increase in 5 to 10 years I don't think it's going to have a significant affect to the price and the price is going to stay very stable for a long time between the three and six dollar range.

Libby Casey: Final Call from New York City, Marta, Independent, Hi.

Caller Marta: Hi, thanks for taking my call. I'm actually asking a question for my mother in Florida. And the question is why can't the individuals use more solar energy to lower their own bills? There are so many permits and so many problems. My mother lives on a fixed income and her energy costs rival her mortgage - when she had a mortgage - now she can barely keep up with her soaring energy bills and I called Florida power and light to do a thing with the government for the solar and they only pay 60% you pay it off in 12-14 years and you're still paying Florida Power and Light 35% so in 12 years your cost are going to go up enough to be back where they were and so I said that's not going to save my mother any money and the guy goes well you're saving the country. You're saving pollution and the environment and I go yeah but my mother can't pay her energy bills. I'm just wondering why it's so impossible to be off the grid.

Libby Casey: Thanks Marta and her mom.

Jon Wellinghoff: Well it's changing very quickly. I really sympathize with your mother and the high energy bills she's paying but I think solar is going to come to her very soon. There are new financing structures that the solar developers are putting together for individual consumers that will make it affordable for most consumers in a very short number of years. I can see this happening but that does not mean you are going off the grid though. You will still be connected to the grid because I think the interconnections between those distributed systems and our larger central systems are essential to help everybody keep the rates down.

Libby Casey: FERC Chairman Jon Wellinghoff, FERC of course the Federal Energy Regulatory Commission. As we mentioned earlier in our show he has announced his resignation. He'll be stepping down as soon as someone is put in his place.

A Final question for you. Do you know what you're doing next and are you under any obligation by the American public to avoid certain jobs or roles as you leave this Federal Regulatory, Electricity cop as the Baltimore Sun called you, position?

Jon Wellinghoff: Well Libby, I don't have any current plans. I'm certainly looking at what opportunities I may have. During the interim period that I'll still be at FERC until my successor is nominated and confirmed I will continue to vote but I'll also try to avoid any conflicts and if there are any firms I'm speaking to that are before FERC I will recuse myself from those cases. Beyond that when I leave FERC I do have an obligation under the law to not practice before FERC for a year and would certainly honor that but beyond that I have open possibilities in the energy field and I'm very excited about those opportunities.

Libby Casey: Jon Wellinghoff, thank you so much for your time Mr. Chairman.

Jon Wellinghoff: Thank you Libby.