

Clean Skies Sunday
March 8, 2009

Transcript of interview with Acting Chairman Jon Wellinghoff

Susan McGinnis [Introduction]: Hello, and welcome to Clean Skies Sunday, a weekly half-hour look at energy issues facing Washington and America. I'm Susan McGinnis.

In January, President Obama named Jon Wellinghoff to be Chairman of the Federal Energy Regulatory Commission. He now heads an agency critical to the country's energy future. Wellinghoff will oversee efforts including integrating renewable energy and electric vehicles into the grid, expanding energy efficiency, FERC's potential involvement in a carbon cap and trade system and more. Jon Wellinghoff sat down with Clean Skies TV News to talk about the future for FERC under new leadership.

Susan McGinnis: Mr. Wellinghoff, thank you so much for joining us.

Jon Wellinghoff: Thank you, Susan.

Susan McGinnis: Tell me first, how does it feel to be taking the helm of such an important energy agency at such a critical time?

Jon Wellinghoff: Well, it's daunting but exhilarating at the same time because there's so much to do and there's so much opportunity especially in the areas of renewables and energy efficiency, areas I have a passion in, so it's exciting.

Susan McGinnis: Now, so much of the talk in energy circles now is as you said is about the electric grid. Can you give us a sense of your take on just how bad the state of the current grid is, how urgent action is needed?

Jon Wellinghoff: Well, we have a very balkanized system. We have 150 different operators, we have 3,000 different retail utility providers in this country. And we have the opportunity to I think do significant improvement, efficiency and consolidation in ways that can drive costs down for consumers at the same time that we can make the entire grid much more environmentally friendly. So the opportunities are very great. The grid that we have now was never designed to do what we're intending it to do. It was designed to provide, you know, local power in very local and regional areas. And what we're trying to do is move large amounts of renewable energy that's available in our country to load centers out of the Midwest into the Eastern Seaboard and the West Coast. And that kind of a task is going to require a whole new revitalization of the grid.

Susan McGinnis: Right, and that's why interstate electricity transmission is getting attention at the highest levels, including the president. Do you believe that FERC needs to have, do you now believe that FERC needs to have stronger authority to site interstate high-voltage transmission, and do you plan to push Congress to do that in order to integrate more renewables into the grid?

Jon Wellinghoff: Well, I do believe that FERC is going to have to have additional authority than it does now with respect to siting. I don't think I'm going to have to push everybody to do it though, there seems to be a great interest in doing that. There's already a great number of bills that have either been introduced or are going to be proposed and introduced shortly in Congress that will give FERC, or will propose to give FERC, some additional siting authority. But that siting authority will I think come in conjunction with some requirements for collaboration with the states and regional entities. And that will be essential to ensure that the overall system will be put into place in a way that is compatible with local needs as well.

Susan McGinnis: So you don't think that FERC needs total authority. A complete federal steamroller for this kind of siting authority is not necessary.

Jon Wellinghoff: No, because I have to tell you that I'm from Nevada. And so being from Nevada, the steamroller approach doesn't work if you know anything about Yucca Mountain. And I've learned that very well. You cannot steamroll a state. You have to ensure that the state and local interests have full consideration and are given full consideration, and if you don't do that then you're not going to succeed.

Susan McGinnis: Speaking of Nevada, House Majority Leader – Senate Majority Leader Harry Reid said he is sponsoring legislation that would give, that would involve eminent domain authority. Do you see that as a little bit too far-reaching for FERC, or do you see that actually happening?

Jon Wellinghoff: I think that ultimately there will have to be eminent domain authority. I'm not diminishing that at all. I think Senator Reid's bill is right on in that regard.

Susan McGinnis: Have you seen a draft of it?

Jon Wellinghoff: I have seen a draft, yes. But that eminent domain authority will again have to come in conjunction with consultation with the states and that is also included in the draft.

Susan McGinnis: And as far as the costs needed to build new transmission facilities, you have said that the stimulus package that passed is simply seed money, that it's nowhere near the 1 to 200 billion dollars that will be needed. What do you, are you expecting more to come from the comprehensive energy policy or is this where you think private companies need to step in?

Jon Wellinghoff: No, I think private companies not only need to but will in fact step in and we're seeing that with a number of cases we've already approved. We just approved one last week where private companies were proposing to put up I think 2 to 3 billion dollars in a very large line in the Montana area that will be moving over 6,000 megawatts of windpower exclusively down to an area called Mead, which is near Las Vegas. So I think if we put the structures in place that allow for the planning, the siting and the cost allocation, the private companies will come forward, the money will be there, the investors will be there, because these are very secure, long-term investments that will provide those investors with good returns on their money, and I think there will be very little problem in getting that money coming forward from the private sector.

Susan McGinnis: Talk to me a little about how cost is allocated as transmission is built across different areas. Right now, if a utility builds a transmission line, they bill their own customers. But with wind and solar transmission about to cross lines where the power isn't going to be received by the customers. Is there a better way to allocate the costs?

Jon Wellinghoff: Well, there's multiple ways to allocate the cost. One way is what we've done with this particular line and that is to put the primary costs on an anchor shipper. Another way we did allocate costs recently was with a line in the Tehachapi area of Southern California, where there, there was no large shipper on the line, again no large wind developer again, on the line. So instead – and it was impossible for the individual small wind developers to individually pay initially for this large backbone transmission line. So it was kind of a chicken and the egg problem we had. And the way we solved that, we said look, where the line's going to go with the load, let's let the load initially pay for the line, and as the wind developers come on and fill out the line, then they can pay back to the load entities, ultimately, their initial costs. Or they can not pay back, but they can absorb those costs ultimately. That's what was done in the Tehachapi area. So, ultimately, costs have to get spread out over those who benefit, but we have to look, I think, more broadly at what benefits all with respect to these lines. And even though people may not be receiving the power, there's tremendous environmental benefits that all of us are going to see by putting renewables on the lines.

Susan McGinnis: And when you talk about, I'm going back to the eminent domain, which you do think will be part of the future, is there any thought given to, instead of using eminent domain to take the land, to compensate landowners like it's being done in the shale plays for folks who allow the drilling of their land?

Jon Wellinghoff: Eminent domain does in fact include compensation. You cannot acquire something by eminent domain without providing compensation, that is part of it, although the compensation is something that if it's not negotiated –

Susan McGinnis: I'm more a royalty system than eminent domain.

Jon Wellinghoff: Right, and that's typically what's done. And as a matter of fact, under the pipeline example, with 5,000 miles of pipelines that we've sited, I don't have the exact statistics, but very, very little of that was taken by eminent domain. And most of that is acquired by the pipeline companies through some type of a, sort of a lease system of going in and negotiating with the landowners a price for accessing their land and putting the pipeline across their land. And I suspect, given the history of the pipelines, it would be the same thing, largely, with the transmission lines. The use of eminent domain, I think, would happen in very few instances.

Susan McGinnis: Renewables advocates, a lot of them are looking to FERC's natural gas pipeline authority as the model for possibly interstate electricity transmission. Can you explain sort of the siting process for natural gas pipelines and do you think that's applicable to electric transmission?

Jon Wellinghoff: I think the siting process is generally, with the exception that I think we need to fold into it as I mentioned a lot more state consultation with respect to state governors and state public utility commissions, state land offices and environmental offices. We do that to some degree now, certainly, with the gas pipelines. And those state agencies can actually be collaborating agencies in our pipeline siting process. And as a collaborating agency they can participate along with us in developing the environmental impact statements for those pipeline projects. I would suspect that we would use the same process for transmission.

Susan McGinnis: Anything new going on with all the natural gas shale finds? New pipelines must be needed for all of that extra gas that needs to come to market. Are there any permitting issues you're dealing with now?

Jon Wellinghoff: Well, we're dealing with permitting issues on a continual basis. There's a number of new pipelines. There's one that's coming out of the Rockies going West, and there's tremendous new finds in the Rocky Mountains. There's a lot of new shale finds in the Northeast as well, and we're seeing a number of

pipeline applications that will be needed to develop those particular shales that deliver that gas to markets.

Susan McGinnis: Some objectors to transmission lines have alleged that there are health problems associated with them. Do you have any view on that, do you have any idea that these things can pose a health hazard?

Jon Wellinghoff: Well, there are issues with electromagnetic fields for transmission lines. One thing I've been looking into, apparently the case that an AC line, an alternating current line, does have some electromagnetic fields associated with it. And there's been a lot of controversy about the health effects. I've read the papers that kind of go both ways – some that say that there are substantial health effects and others that say that there are not. But another interesting thing, a lot of these large transmission lines that people are proposing for renewable energy projects, some people are proposing that they be DC, or direct current, lines. Direct current lines don't have EMF associated with them so it may be one way potentially to reduce the public concern if we propose that these lines be direct current rather than alternating current. Another interesting thing about the alternating current vs. direct current that I've been looking into, a proposal that has been made to us by a planner out of the Midwest and the Midwest Independent System Operator that was central to a plan done for the whole Eastern interconnect, looked at doing direct current lines, and doing those direct current lines along railroad right of ways. And you can do that because again the DC line does not interfere with communications where a lot of those railroad right of ways also have fiber optic cable down them so you couldn't put an AC line down on that right of way. But you could put a DC line down that right of way. Well if you put the DC line down that right of way, you eliminate the siting problems because already those right of ways have already been permitted and people are not going to object to them being sited in those areas. And the third thing you can do is you can also potentially electrify the rails. If you could electrify the railroad system in this country you could reduce fuel costs for the railroads tremendously and you could also ultimately reduce fuel consumption tremendously by as much as 55 gigawatts worth of fuel, which would be a huge environmental benefit.

Susan McGinnis: One more area that would move onto the grid.

Jon Wellinghoff: Exactly.

Susan McGinnis: We've been talking with Jon Wellinghoff, incoming Chairman of the Federal Energy Regulatory Commission. Still more to come on Clean Skies Sunday, Wellinghoff talks power markets, and cap and trade.

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Susan McGinnis [Introduction]: Welcome back to Clean Skies Sunday. I'm Susan McGinnis. Jon Wellinghoff, incoming Chairman of FERC, has been sharing his thoughts on incorporating renewable energy into the nation's electric transmission system and what FERC needs to accomplish to get there. Well now, he addresses FERC's efforts to encourage power markets at a time when a lot of areas seem to be reverting to regulation. Also, his thoughts on whether or not FERC should oversee a cap and trade system for carbon reduction.

Susan McGinnis: FERC has also been encouraging power markets. Now, the momentum, at least lately, seems to be fading, a lot of states are starting to revert to traditional regulation, like Virginia, or reconsidering it, like Maryland. Where do you see this going, with the country now seemingly sort of split. Do you see the country reverting to a sort of regulated system?

Jon Wellinghoff: I don't. I think rate-based, cost of service regulation is an anachronism of the past that will not continue because we need to continue to see innovation. We need to continue to see development of the smart grid. I don't think we're going to get development of the smart grid with a rate-based regulatory structure. I also believe we need to see further development of renewables. I think it's been very clearly shown – in fact we had a workshop last week, or this week here at FERC, that indicated that the areas that have competition, that have robust wholesale markets, are much better for renewable energy because they provide for easier interconnection, easier integration of renewable energy into the system, and the ability for that, certainly wind energy, to be able to be better stabilized in the system where you have these larger wholesale markets operating. So I think that if we're going to move forward, we need to determine how to make these markets work. There's critics of these markets – and they're certainly not perfect, they need to be modified in ways to make them more efficient, and I would be the first one to admit that.

Susan McGinnis: What changes can FERC make to encourage markets?

Jon Wellinghoff: Well, we've already done a wholesale market rule that specifically directs the ISOs and RTOs to increase the amount of demand response, that is, the demand-side of these markets, that can be incorporate into them. To the extent that demand response, energy efficiency, distributed generation and other nontraditional resources can be brought into these markets, it just brings more competition. The further competition you can bring into the markets the further you can drive prices down because it will lower the prices that will be bid into the markets and therefore the prices that consumers will pay. So to the extent that we could make these markets more robust, and make these markets

more two-sided, instead of one-sided, with just large generator supply-centric, we can make them have consumers participate in transactional ways by being able to bid up their load reductions and bid up their energy efficiency and bid up their plug-in hybrid electric vehicle that is coming soon. All these things will help all these markets become much more efficient, much more effective, and much more cost-friendly to consumers. I believe that could happen, we just need to work together to do that and FERC can put rules and regulations in place.

Susan McGinnis: Do you need congressional action?

Jon Wellinghoff: I don't think so. I think we have sufficient authority to move these markets in the right direction.

Susan McGinnis: Let's talk about cap and trade. A lot of proposals would put a great deal of regulatory responsibility squarely on FERC. Do you think that is where it belongs, is this the right agency to do that job, and do you have the resources to battle, to do this?

Jon Wellinghoff: Well, certainly now we oversee electric wholesale markets. And this is a new market, the cap and trade market that's being proposed. But it's one that's beyond our current scope in the sense that it is not simply a national or regional RTO market, but it's one that's international. It's worldwide. To that extent, we certainly would need different kinds of expertise here than we have now. We also would need an extensive increase in staffing. I'm not saying that we can't do it. I am saying, however, that it would be a very different thing for us to do, and I think require us to have many more resources than we have now. We're actually doing some analysis of that now.

Susan McGinnis: Do you want it?

Jon Wellinghoff: [Laughs] Do I want it? I tell you, there's other things though I would want first. I would much prefer that FERC to, No. 1, have additional transmission authority, both in planning and siting, to again work with the states to develop major transmission systems in this country, to deliver major amounts of renewables to load centers. I would like that first. And secondly, if there's a national renewable portfolio standard passed, I believe that FERC is the appropriate agency to implement and oversee any kind of renewable portfolio standard.

Susan McGinnis: And you would like to see a national renewable portfolio standard?

Jon Wellinghoff: Yes I would. There's about 29 states that have a standard now, and I think a national standard would be appropriate.

Susan McGinnis: And how would that fit into a power market?

Jon Wellinghoff: It would fit into a power market in that it would have to be integrated into that market in a way that as the market accounted for resources in the market, part of it would have to be a percentage of those resources would have to meet the national standard. So FERC would have to keep track of that, in fact some of the RTOs keep track of that right now. So it's something that naturally we could do under our current authority. So those two things, the transmission and the renewable portfolio standard, I would like to see coming to FERC. If we had those two things I think we'd have plenty on our plate, and cap and trade I think might be something that could tip us to a point where, you know, we would be scrambling to be able to effectively implement all of it. And I'd like to see the first two be done in a very effective and efficient way.

Susan McGinnis: Well, knowing that it is going to probably be put under way simultaneously, who might oversee that area?

Jon Wellinghoff: Well, certainly the EPA is one entity. They have experience there. And there's the Commodities Futures Trading Commission is another one that oversees commodities. So, those are two potential entities that people could look at as the overseer of a cap and trade policy.

Susan McGinnis: So, when you talk about the renewable portfolio standard, it's often justified by climate, on climate change grounds. Do you see it being a low-carbon portfolio standard that benefits whatever technology brings down those emissions, or do you see it encouraging specific technologies or specific types of energy?

Jon Wellinghoff: Well, I see it as a standard that is more or less a mirror of the ones that are in the states now. I was responsible for working on the standard in the state of Nevada, and I worked on standards in four or five other Western states as well. And those standards, you know, simply require that a certain percentage of the total resources that are provided by the utilities come from renewables. In doing so, the ultimate result is lowering carbon. But there's not necessarily a direct link between a carbon cap and trade, for example, and a renewable standard. A renewable standard also is one that can be expanded beyond renewables. I think, quite rightly, you can look at things like waste heat recovery – that there's a tremendous amount of industrial processes that happen in this country that we're just blowing the waste heat, you know, out the door, or up a smokestack, that you can actually take that waste heat and make electricity with it. You can also do

cogen and combined heat and power for commercial facilities around this country, which, again, with proven efficiency from the central station power plant of about 40 percent to a level of over 85 or 90 percent when you're doing it at the actual facility.

Susan McGinnis: But do you want to say, this much wind, this much solar, this much geothermal, or do you want to say, get your emissions down to this level however you can?

Jon Wellinghoff: I think you have to do some of both. Certainly, there are certain technologies that you want to encourage, because they have great promise but need some support. For example, in Nevada we had a specific solar set-aside. And the reason we had a solar set-aside in our renewable portfolio standards is because we knew it was the most expensive technology, but a very promising one for Nevada because Nevada has a tremendous amount of sun. So we ensured that it could move forward. Another area that you might want to make a specific carve-out for in an energy portfolio standard, again, expanding beyond renewables, would be energy efficiency. Energy efficiency is one of the most underused resources in this country. When we get done, I'll give you a tour of my office. We've done a lighting demonstration here in my office to show that even though the lights that were put in in 1994 in this office building were state of the art at the time, the most efficient you could put in. What we did is took the most efficient lighting system that was available today, in 2009, and installed it and demonstrated we could reduce our lighting energy use by 50 percent. I could reduce the total energy use in this building by 50 percent. The problem is it's difficult to do it with this building, it's difficult because we don't own the building. It's owned by a third party, so there are split incentives as to who's going to actually benefit from doing those kinds of things. So we need to put in place structures, and we need to reduce barriers for energy efficiency in an energy efficiency portfolio.

Susan McGinnis: And FERC will have a hand in that as well?

Jon Wellinghoff: FERC will have a hand in that in the sense that with these organized wholesale markets we can actually bid energy efficiency reductions into those markets. It's being done right now in New England, for example, in the New England ISO. And it's something that's being proposed in PJM, which is the Mid-Atlantic regional transmission organization. So it's something that can be done as part of a wholesale market as well. It's often something that's done on a retail level as well, by individual utilities. But it must be done. It must be encouraged, it really has to be encouraged in this country because it really is the biggest resource we have. I think it's the first fuel that we have, is energy efficiency.

Susan McGinnis: So we're talking about energy efficiency, cap and trade and siting. FERC is an independent agency, but you are talking with White House officials. Any indications of any other, anything else, that the White House may be looking to FERC for?

Jon Wellinghoff: Well, no particular indications. I've got a number of other discussions that are going to go forward. One area that we do have some specific congressional responsibility – I'm sure we'll have a lot of interface with the Administration on – and that's the smart grid. A lot of people don't understand what that smart grid concept means. It really is a transactional idea. Really, what it means is it allows consumers to transact on the grid, both economically and physically, in ways that they are unable to do so now. It allows them to actually participate in the grid by modifying their loads, responding to prices, doing things that will ultimately control their total bills – help them lower those bills by controlling the total bills. And we need to put into place the communications structures, the sensing devices and the software that will enable consumers to participate in the smart grid. FERC is responsible under the 2005 energy law to enact the standards for the smart grid, so we will be in fact enacting the standards for the smart grid and in doing so standardizing what the communication protocols are that are used to put the smart grid in place.

Susan McGinnis: In Colorado, there's some sort of smart grid city demo going on, are you following that closely?

Jon Wellinghoff: Yes, Boulder, Colorado. In fact I'm going to go out there this summer and take a tour of it to see what they're doing. But again, what people have to understand about the smart grid: It is consumers transacting with that grid at the consumer level, but it goes all the way up to the transmission level, to the transmission control operator level, and to the generator level as well. You have to have all that integrated in as a total whole that can communicate with each other so you can improve efficiency across the whole spectrum. If you can improve efficiency across the whole spectrum we can save literally hundreds of billions of dollars in this country of energy costs that right now we're wasting in the inefficient operation of the grid.

Susan McGinnis: I want to ask you about one other area that's faded from the headlines, but market manipulation. Will FERC be working closely with the CFTC to ensure fair trading in the markets?

Jon Wellinghoff: Yes. I've already met with representatives of the CFTC and they've assured me that they're interested in continuing to work with us, and we're very interested in doing so with them as well. And we sort of co-share jurisdiction there with respect to market manipulation. And I think it's only good to have more

than one agency there to oversee what potentially could be a very troubling thing for consumers. We need to make sure that consumers are not harmed by these markets.

Susan McGinnis: Give me your view of the future of just the energy mix, when the smart grid is up and running and renewables are up to speed. How big a role do you see for renewables, what do you think will be the fate of coal and gas and nuclear, and foreign oil?

Jon Wellinghoff: Well, with respect to renewables, right now we're seeing proposals and some analyses to look at as much as 20 percent renewables put on the grid. And I think that can increase to 30, 40 even 50 percent potentially. That's one side of it. The other side of it is we're going to see on the energy efficiency side if we could break down these barriers and create industries that will allow energy efficiency to become widespread. The result is going to be that the demand for electricity is going to in fact stabilize or be reduced. So if you combine those two things together, I think you're going to see a very reduced role for fossil fuel, central station generation, for nuclear power as well. I think you're going to see predominant energy provided by renewables and local distributed generation – which could include renewable sources of generation like photovoltaics but also could include natural gas. I think natural gas is going to be in our future for a long time.

Susan McGinnis: Chairman Wellinghoff, thank you so much for joining us.

Jon Wellinghoff: Thank you, Susan. I appreciate being here.