

Administration

A Greener FERC

By Margaret Kriz

■ New chairman eyes upgrading the electricity grid and enforcing new standards for renewable-electricity generation.

■ \$11 billion from the stimulus package is just seed money for a \$100 billion to \$200 billion “smart grid.”

In March, President Obama named Jon Wellinghoff, a former Nevada consumer advocate and a champion of energy efficiency and renewable-energy projects, to chair the Federal Energy Regulatory Commission. Wellinghoff came to the commission in 2006 to fill a vacant seat and was reconfirmed in 2007 for a five-year term. The five-member commission oversees wholesale electric transactions and interstate electric transmission and gas transportation in the United States.

Edited excerpts from *National Journal's* recent interview with Wellinghoff follow.

■ **NJ: Congratulations on your appointment. Did you seek the chairmanship?**

■ Wellinghoff: I had a lot of policy issues and goals that I was interested in pursuing, and I knew that if I was chairman it would certainly be easier to do that, because you can direct the agency—although I will tell you that [former] Chairman [Joseph] Kelliher gave me great opportunities to lead in a number of areas. Certainly one was on the whole demand side [of electricity use]. It's an area that fits into my overall philosophy that we have to look at the whole energy infrastructure as an entire system. Lowering demand [for electricity] is an area that for a long time we've ignored.

■ **NJ: President Obama wants to double the amount of renewable electricity produced in the United States in the next three years. Is the nation's electric transmission grid set up to move that electricity to urban centers?**

■ Wellinghoff: The amount of renewables [generated in the United States] right now is relatively low. So to double it in three years is not out of the question. I think we can handle that probably with a fairly modest upgrade in transmission lines. But the real challenge will be to meet the other goals out there. There's one proposal for a national [renewable-electricity] standard of 25 percent by 2025. When you get to a 20 to 25 percent level of renewables nationwide, then we're starting to look at some transmission challenges of a significant level.

That's the point where you have to seriously come forward aggressively with things like [Senate Majority Leader Harry] Reid's bill, where he's looking at creating an extra-high voltage backbone transmission system that would be designed primarily for the purpose of taking large amounts of location-restrained remote renewable resources and bringing them to load [in high areas of demand along the coasts].

■ **NJ: You've suggested that as much**



as half of the electricity we use should come from renewable sources. That's very ambitious.

■ Wellinghoff: It is ambitious, but I think a 50 percent renewable portfolio standard is do-able. I'll tell you, there are states that I know intimately, like Nevada. I've already done some fairly simplified analyses that demonstrate that a state like Nevada could have 80 percent of its energy resources come from renewables. I'm quite confident of that.

You have a very good mix. There's geothermal—there's a substantial amount of geothermal in the state—and solar and wind. You combine that with demand-side energy efficiency and [small-scale] distributed generation, and I feel quite confident that Nevada could have 80 percent-plus come from renewable resources.

■ NJ: Can the nation's high-power electricity grid handle such big percentages of renewable energy?

■ Wellinghoff: We'll have to have efficient, smart systems to do that; we need systems that incorporate all of the smart-grid technologies. If we have new systems, we should make sure that they have the best available technologies incorporated into them.

■ NJ: What exactly is a "smart grid"?

■ Wellinghoff: I see the smart grid as primarily two things. No. 1, it is a grid that allows for consumer transactions. It allows for the communications and the delivery of services from the consumer to the grid and from the grid to the consumer.

Right now we have a one-way grid that only allows electricity to be delivered down to the consumer. That's all it can do. A smart grid would enable the consumer to participate in the grid by potentially delivering electricity to the grid. You could have a plug-in hybrid electric vehicle that could deliver energy back into the grid.

You could also deliver services through the grid, which would include regulation and creating a standing reserve in which the consumer would decide to reduce consumption or modify consumption in some way that would ultimately have impacts on the grid. Those impacts would be positive ones that would be reflected in more efficient operation of the entire grid.

■ NJ: Can you give an example of how that would work?

■ Wellinghoff: We could be sitting in this room on a weekday in the middle of August. And PJM [the transmission organization

that coordinates electricity movement in 13 states and Washington] might be determining that they were experiencing a peak in demand that would result in the price of electricity in Washington increasing beyond a certain level.

But they might determine that there is enough load response in Washington to drive that price down. So they would call upon individual consumers—maybe in this building—to do load response. And the load response we could provide back to PJM would be to lower the lights by 10 percent. If you take 10 percent of the lighting load off of the building, and you did it in every building in Washington, the ultimate result for PJM would be that the peak load would be reduced and the price in Washington would be reduced, and all consumers would save money.

“A state like Nevada could have 80 percent of its energy resources come from renewables.”

In addition, those individual consumers who participate [by reducing electricity] would be paid for their participation. It's those types of technologies that would make the grid more efficient in the way it operates.

■ NJ: Do we need congressional action to force the states to build electricity lines through their regions?

■ Wellinghoff: We do need some legislation to create a backbone, extra-high voltage grid that would deliver remote renewable resources, and I think the Reid legislation is a good example. Senator [Byron] Dorgan said correctly that what we need to do is minimize intrusion into states' rights on the one hand, but on the other hand ensure that we have adequate federal authority to get the grid built.

■ NJ: Does the federal government need to get involved in expanding the grid?

■ Wellinghoff: Ultimately, as envisioned by the Reid bill and most other proposals, building the grid would be done by private entities with private capital. We're seeing here at FERC a lot of independent transmission people coming forward. In the last couple of months, we've seen two large renewable transmission project proposals that

have been offered by independent companies. I think that's a very healthy thing.

■ NJ: Doesn't the president's economic stimulus bill provide \$11 billion to help build a smart transmission grid?

■ Wellinghoff: That \$11 billion is just seed money to what really will be necessary to build this grid in the way that we're talking about to promote renewables. We're talking probably \$100 billion or \$200 billion for the whole system.

■ NJ: Some energy experts want Congress to put FERC in charge of any climate-change program that allows companies to buy and sell greenhouse-gas emission credits—a so-called cap-and-trade program. Do you agree?

■ Wellinghoff: I think a lot of people are looking for the appropriate agency to oversee this process. One of my concerns is that FERC has a lot of other things on its plate. There's this extra-high-voltage transmission system that's been proposed. The legislation for implementing that system is likely to pass. In addition, we currently have significant responsibilities with regard to reliability of the electric grid. We do market oversight now—electric and gas markets. But a cap-and-trade system with trading carbon, that would be something that we'd have to start from the ground up to do.

■ NJ: Whichever agency oversees the carbon-trading program will have to ramp up its staff.

■ Wellinghoff: Yes, I could see potentially increasing our staff by 20 or 30 percent [to handle climate-change regulations].

■ NJ: How large is your staff now?

■ Wellinghoff: It's at 1,400 people. That would be a very significant effort. I think there are other agencies that have similar if not greater expertise [to deal with climate-change rules].

■ NJ: It doesn't sound as if you're lobbying for the job.

■ Wellinghoff: I will clearly say I'm not lobbying for it. I'm not saying we can't do it. But we have a lot of other responsibilities. Another job I actually would lobby for is for our agency to oversee, monitor, and enforce the renewable [electricity] portfolio standard. If [Congress establishes] a federal renewable portfolio standard, I think FERC would be the appropriate agency for that. ■

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