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**Interview With Susan McGinnis, The Energy Report
CleanSkies.tv**

Susan McGinnis: Good afternoon, I'm Susan McGinnis, thanks for joining us for The Energy Report on this Earth Day, also the one year anniversary of the launch of Clean Skies TV. Well, what started out as a routine discussion with journalists turned into energy news headlines today. The US Energy Association's newsmaker series lived up to its name when FERC Chairman Jon Wellinghoff told reporters the US may not need to build any new nuclear or coal power plants ever. Wellinghoff went on to say nuclear and coal are too expensive and that renewables, efficiency and a smart grid can meet the energy needs of the United States. Jon Wellinghoff joins me now. Chairman, thanks so much for coming in.

Jon Wellinghoff: Thank you, Susan, for having me.

Susan McGinnis: What you say is the opinion of the Sierra Club and some others who talk this way that nukes and coal are just too costly but that companies that are proposing these new plants say that is absolutely not true if they have the loan guarantees. So, what are the numbers that you're looking at?

Jon Wellinghoff: Sure, if I had a loan guarantee then everything would be cheap too.

Susan McGinnis: Every energy source has its breaks.

Jon Wellinghoff: Yes. But I think if you took away all of the subsidies, I think still, if you compared them on a construction cost, and an operating and maintenance cost, and the numbers that I've seen from many different sources indicate that a new nuclear power plant is going to be somewhere north of \$7,000 a kilowatt. I can build a solar system for that. Wind plants come in at \$2,000 a kilowatt or you know, one-third of that, and also don't have all the operating and maintenance issues with the nuclear plants, don't have the decommissioning costs, don't have the costs of waste. But, really, that's not the main issue. The main issue: Nobody's building nuclear plants right now. The main issue is we need to move forward with renewables. We need to move forward with the wind energy, the solar, the geothermal, the biomass, the hydrokinetic – it is all available in this country, and it needs to be integrated into the grid. And that's really the main focus of FERC – is the integration into the transmission grid. If we don't have the transmission available, we can't really make these renewables available.

Susan McGinnis: But if you're right, and those numbers add up, why are 17 major utilities applying for all of these licenses and looking at nuclear and coal?

Jon Wellinghoff: Well, because they can ratebase it. They can put it in the ratebase and they can charge it to their consumers. But you have nobody that's building a merchant coal plant or a merchant nuclear plant. You have all kinds of people who are building merchant wind farms. In other words, people are building plants for wind on their own money, but these utilities are expecting the ratepayers to build the nuclear plants on the ratepayers' money.

Susan McGinnis: Now what would you do with current nuclear and coal plants? Would you phase them out?

Jon Wellinghoff: Well, certainly, they should operate until the end of their useful lives, as all plants, all types of plants. We need those to maintain the reliability in our system, to maintain the electric requirements for our country.

Susan McGinnis: Steven Chu says nuclear must be a part of our future. He wants to step up the loan guarantees. Where do you think he has it wrong?

Jon Wellinghoff: Well, again, I'm not going to disagree with Secretary Chu, he has responsibility because there are certain monies that have been set aside for loan guarantees and certainly, he needs to appropriate and get that money out. I'm just saying from a cost standpoint, from the numbers I've seen, these plants look very costly, they look much more expensive than the alternatives including not only renewables but also energy efficiency, also combined heat and power and other distributed systems that would use natural gas. So I think there's a whole plethora of alternatives that are less expensive than the nuclear alternative.

Susan McGinnis: Would you say no to investing in CCS technology for clean coal?

Jon Wellinghoff: Certainly, we should look at sequestration technology, we should see if it is feasible, but it's a long ways out as well. Nobody's building coal plants currently either because of the uncertainty with respect to carbon.

Susan McGinnis: But you're saying the research should go on, even though you say no new coal plants should go up.

Jon Wellinghoff: Certainly, I think we should put research money into sequestration, we should put research money into advanced nuclear as well. Because perhaps we can make some breakthroughs that will in fact look at the ability to put in place lower-cost alternatives. But I'm saying right now: Take the

technology we have today, if you had to pick today, you should pick the lowest-cost technology.

Susan McGinnis: And few argue that we should make a push into renewables but the question is the cost and how much time it would take them to get up to the right scale. It looks like natural gas is the only thing left here to fill in the blanks. Are you talking about a major build-out of gas plants?

Jon Wellinghoff: No, I'm not. And one thing – I don't understand this issue about cost. We have people who testified before FERC, that tell us they can deliver wind to Chicago cheaper than a new coal plant. So ultimately, if you can deliver wind cheaper than coal, if you can deliver efficiency cheaper than all of the other alternatives as well, and some of these other resources, those are the ones that we need to emphasize first. I think we can scale them, I certainly know we have the ability technologically to do that. I think it's a matter of political will, and it's a matter of making sure that we don't have regulatory barriers in the way that prevent us from putting those things into place. But ultimately, those are the technologies that we need to move forward with. Now, gas is certainly part of the bridge, but I think we need to start looking at gas not only from the standpoint of central fueled plants – we have a lot of natural gas power plants now – but more distributed generation. Look at smaller gas plants, used in microturbines, used in combined heat and power, in other ways that are much more efficient, much more local loads, and using gas much more efficiently. So again, we can use gas more efficiently, lower the costs for consumers, and bring in lower cost wind.

Susan McGinnis: You're also looking at a big expansion of the interstate, a buildout of the transmission system, right? Is it your theory for, you want both distributed energy in some places and also long-distance transmission of renewable energy.

Jon Wellinghoff: Yes, because we have both. We have a lot of capability for distributed energy, we have a lot of location-constrained, low-cost, economic, renewable resources like wind and geothermal and solar that have to be delivered to the loads. Most of our loads are on the coasts of our country – 75 percent of the loads are on the east and west coasts of the United States, most of the wind is in the central part of the country, most of the solar is in the Southwest. We have to have transmission to deliver that as well. So we need to do both. We need to do distributed systems, energy efficiency, and we also need to move those economic, low-cost renewable resources to the loads.

Susan McGinnis: And are there time frames for construction that are in sync with the expected increases in demand?

Jon Wellinghoff: Well, there aren't, and that's the real key. What we need to do is start planning. We need an Eastern Interconnect and a Western Interconnect planning process. And there are some groups that have started that, the Western governors have started that in the Western United States. In the Eastern United States there was an informal group formed among the ISOs and RTOs. We need to make that more formalized, we need to have more federal money going into that. We need to have more oversight from the standpoint of federal policies of how much renewables we need by a certain date. And once we do that, and get the plans together, then we can start moving forward with the transmission system.

Susan McGinnis: And you mentioned something today about baseload eventually sort of becoming an outdated concept altogether.

Jon Wellinghoff: An anachronism, in essence. It's an anachronism because ultimately baseload, the concept of baseload was putting in the most economic resources first. If wind is the most economic resource, if energy efficiency is the most economic resource, it becomes the new baseload, ultimately.

Susan McGinnis: That's an awful lot of turbines, though.

Jon Wellinghoff: An awful lot of turbines, but we can scale it up. It's been scaled up in Europe, it's being scaled up right now in China. China is moving ahead very quickly with wind systems. And we've done it in this country: We put in 8,000 megawatts of wind turbines last year, which was, you know, more than all the new coal plants and certainly more than any new nuclear initiatives in this country as well.

Susan McGinnis: So, the chairman of FERC can come out and talk about, you know, no new nuclear plants, they may not be needed, no new coal plants, but FERC really has little to do with plants with those sites, it really has to do with the states in the end.

Jon Wellinghoff: What FERC has something to do with is the transmission. So that's really our focus. Again, my focus is making sure that we can integrate renewables into that transmission system because if we can't make that transmission system work then none of this is going to work. It won't work for the renewables, it won't work for the coal, it won't work for the nuclear. Ultimately, the transmission system has to be the glue that hangs this all together in a way that we can get these resources to loads.

Susan McGinnis: And that part is definitely on FERC. Chairman Wellinghoff, thank you so much for stopping by.

Jon Wellinghoff: Thank you.

Susan McGinnis: We appreciate it.