



Environmental and Energy Study Institute

Transcript of comments by Leon Lowery, Majority Staff, Senate Committee on Energy and Natural Resources at EESI's Congressional Briefing, *"Can a National Renewable Portfolio Standard Increase Energy Security, Reduce Emissions and Lower Costs?"*

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Leon Lowery: "... We have passed a renewable portfolio standard in the Senate for the past three Congresses. I think in 2001 we had 56 or so votes against weakening amendments. The Democrats were in the minority in 2003. That was the year we passed the bill from the Congress before, so we didn't have any votes on the floor. In 2001 the energy bill skipped the committee in the Senate. And in 2003 it skipped the floor in the Senate. And in 2005 we finally got it right and got a bill out, but it didn't contain a portfolio standard even though we had passed one on the floor of the Senate.

"I'd like to talk just a little bit about why Senator Bingaman is so seriously committed to a portfolio standard and has pursued it for so long and intends to continue until we get it done.

"When you think about energy security and the dependence we have these days on foreign supplies of energy of all kinds -- not just oil, natural gas increasingly, other forms of energy -- maybe ethanol one day, with Brazil being a big exporter, reflect on the fact that domestic energy supplies cure that. And there is nothing that is more domestic than the sun that shines down on the ground that grows the crops, the wind that blows over it and the water that waters it. You can't get more domestic than that. It represents a real step away from dependence on all kinds of foreign sources of energy and from dependence on fossil fuels to which, as the President acknowledges, we have become addicted. We clearly can improve energy security.

"Emissions are sometimes debated, but it is clear from a number of modeling studies, that emissions are reduced. Let me say something about the Energy Information Administration. They do a great job, completely nonpartisan. I know, because they treated me just the same when I was in the minority as they do now that I'm in the majority. But they do a great job and do it for everybody, and help us with a lot of information and analysis of hard questions, as do many other people. Their studies indicate that carbon dioxide emissions would be significantly lowered by a renewable portfolio standard. A number of other studies indicate the same thing. I'm going to talk a little bit about all of these studies in a clump in a minute. As to the costs, we'll get to that in the questions about the studies.

"Everybody's got battling models, they go back and forth. I think, under any objective analysis of the studies that have been done, the portfolio standard is a clear winner on economic benefit for the country. I think most Americans believe that a lot of our energy comes from renewable sources. You ask percentages and they'll say, 'Oh, well, I don't know -- 40, 50 percent, 60 percent,' because it just makes sense to them that we would be doing that.

“One of Senator Bingaman's favorite charts is from EIA. It shows the percentages over the years of electricity generation from renewables, from coal, from oil, from natural gas, from nuclear power. Gas goes up like this. Coal goes up like this. Nuclear power is there at about a steady 20 percent. And way over here, in 1970, it starts at 2 percent for renewables. Goes right straight across the bottom of the chart all the way out to about 2030, still at 2 percent. Maybe up a little bit now that some things have been done. Even with all of the activity recently, it is still projected at 2 to 3 percent of our supply. Senator Bingaman looks at that chart and says, "We've tried to do things in the past. They haven't worked. We need to do something else." So what we designed was a standard that requires that 15 percent of the electricity generated and sold in this country come from renewable resources by 2020, and that requirement extending to 2030. We would set it up at the Department of Energy; have the secretary develop a monitoring system.

“The monitoring systems are fairly easy, everybody keeps track of how much electricity gets sold and where it comes from already, so that's not too hard to do. But, also attach to this a credit-trading program so that if folks can exceed their requirement and sell credits. They can either sell the excess or use that renewable electricity themselves and sell credits to somebody else. So that for every utility in the country, no matter where located, no matter what the access to renewable sources is, you can use the cheapest resources that are available, always, to meet the requirement. That is the point of the credit trading system. We worked together with a lot of people who do trading of these kinds of things, SO₂ allowances, state renewable credits, and have tried to develop a credit-trading program that will actually work to and actually minimize the cost of renewable resources and minimize the cost of compliance.

“We capped the cost at 2 cents a kilowatt hour, adjusted for inflation. What that means is that if natural gas costs 6 cents a kilowatt hour and wind costs 8 cents a kilowatt hour -- that's high -- the difference between the two is the value of the credit. So, in this case, the credit would be valued at 2 cents. You create a national market where, through bidding into the market you levelize this differential across the country so that you've got a national market value for the renewable credits. It's pretty simple. I think it will work. It's working in a lot of states.

“Well, you ask, why should we bother if 23 states and the District of Columbia have already done it? Another thing that the EIA report and many other reports indicate is that no matter how many different state programs you develop you can't drive a national market that will minimize the costs for everybody everywhere without a national system, without a national credit trading system. And you won't accomplish the renewable generation that you're trying to get built. All the states together can't come up to over about 6 or 7 percent according to EIA. We need a federal renewable portfolio standard, both to minimize the cost and to accomplish these goals.

“As to the economics, many people argue that it's unfair to some parts of the country, because some parts of the country have huge renewable resources and others do not. That's just not true. There's not a single part of the country doesn't have abundant renewable resources.

“Many people think of it as a wind program. Or that this is just all about wind and solar. Interestingly, according to the EIA, our portfolio standard would result in a 50 percent increase in wind generation and a 300 percent increase in biomass generation. There's already twice as much biomass generation in the country as there is wind generation, twice as much. That means at the end of the program there would be four times as much biomass as a result of this program as wind generation. Now, you go to the National Renewable Energy Lab studies, the EIA studies and other studies and see where the biomass exists. The Southeast is one of the most densely biomass potentialized, that's a terrible word, forgive me, regions of the country. There are thousands of megawatts of electricity being generated in the Southeast right now at paper and

pulp mills, on farms. There is an enormous potential for the use of farm waste, corn stover, rice hulls, waste from all kinds of wood manufacturers. There is not a disparity in resources. Sure, the solar is concentrated mostly in the Southwest. The wind is best in the Midwest. What's interesting, though, is Georgia Tech just did a study with the Southern Company that was issued last week and indicates there is a really good wind resource just off the coast of Georgia. And they're developing a project to do a test facility, just off the coast; the water is shallow, 14- to 17-mile-an-hour winds, steady pretty much all the time. That's better than a lot of the resources that are being developed already. There is potential in every part of the country.

“A little bit about the economics. There are studies that have been done that were used in the Senate debate on our portfolio standard that indicated that there would be something like a cost of \$250 billion over the life of this program for customers of electric utilities. Well, there are lots of other studies that indicate something very different. The only way they got to that number was to assume first that the only thing that is economically viable is wind; second, that wind is so far away that you can't get it everywhere; and third, that it will take a lot of transmission to carry the wind. They added the cost of all transmission that is going to get built in the country to the cost of the wind, whether it's carrying other resources or not. So that you wind up with a price for wind that doesn't even beat the cap price. So everybody just pays the cap price all the time. You know, Lawrence Berkeley Labs didn't find that. EIA didn't find that. Union of Concerned Scientists didn't find that, that you pay the cap price all the time. Right now, in New Jersey, wind credits are at something like seven-tenths of a cent a kilowatt hour. That's not the cap price.

“EIA, in the 2005 study of our 10 percent portfolio standard, determined that the price of natural gas would go down from the portfolio standard. Think about it, you just reduced the demand for natural gas by substituting something else for generation. You reduced the price enough that you've saved money on both natural gas, for customers who use natural gas, and the price of electricity. Lawrence Berkeley Lab's Ryan Weiser did a study in 2005 of 15 different modeling exercises of different portfolio standards, every one of them came to the same conclusion, that the price of natural gas goes down. Sometimes it goes down to where the price of electricity only increases by a minimal amount. Often the price of natural gas goes down enough that it lowers the price of electricity. Wood Mackenzie, a natural gas consultancy – they have no stake here. They don't have an ax to grind. They're not advocating for a renewable portfolio standard. They're trying to inform the gas industry. They did a report a couple of months ago that indicated that a 15 percent renewable portfolio standard would lower the price of natural gas from 16 to 23 percent between now and 2026, saving over \$100 billion, even after you net out the capital costs. Now, does the economics work? Now, think back once more to that interregional debate. The claim is that there's a cash transfer, a wealth transfer from the Southeast to the upper Midwest where all the wind is. Even if that were true aren't you still seeing the lower price of natural gas in the Southeast? And you're not paying for it. You're not doing the things to accomplish it. Where is the wealth transfer in that case? It's headed in the other direction.

“This is a fair program. It will work. It has economic benefits. We need to do it. We're going to put a price on carbon, when we do that this will make even more economic sense. There's nothing that we can do to reduce the price of carbon, that saves money, except do this.

“If we can accomplish those goals -- energy security, lower carbon dioxide emissions and save customers money, wouldn't we be foolish not to?”

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