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In wake of Japan disaster, Duke Energy and critics spar on nuclear cost

by Bob Geary

As Duke Energy officials prepared to testify in Raleigh this week about the need to continue plowing their North Carolina customers' money into a hugely expensive nuclear reactor in South Carolina that may never be built, it was easy for a prominent critic to crack that the Fukushima Daiichi disaster in Japan "is the brontosaurus in the room."

Even before the Japanese crisis raised new questions about the inherent risks of nuclear power plants, however, Peter Bradford had declared that the nuclear industry's self-proclaimed renaissance was "in shambles" due to soaring costs. A former member of the U.S. Nuclear Regulatory Commission, the nation's top nuclear agency, and a former chair of the New York and Maine state utility commissions, Bradford is a powerful voice in opposition to spending money on new reactors.

His reason: Building additional reactors to generate electricity will be about twice as expensive as getting the electricity from new natural gas-fired plants or other alternatives—and that price disparity is likely to hold for many years.

Based on U.S. Department of Energy cost estimates for natural gas, Bradford told the *Indy*, "You couldn't say that we won't need any more nuclear [power] for a century. But you could say with some confidence that you wouldn't need it for 20 years or so."

And if, following the earthquake in Japan, nuclear plants aren't dinosaurs, Bradford said in an interview Monday, they'll nonetheless be even less financially viable now because investors' perceptions of their risks—if not also the risks themselves—will be heightened.

The fact that investors, whether as shareholders or lenders, aren't willing to finance nuclear plants, even if promised high returns, is the reason the utilities in a few states have persuaded their legislatures that their customers must be forced to finance them.

Bradford calls this idea, known as Construction Work in Progress, or CWIP, "a splendid flimflam" by which utility managers shift all the risks of cost overruns—or the cancellation of a project after construction starts—from their investors to the general public.

Among the states with CWIP are North and South Carolina.

Duke was seeking permission, in hearings this week held by the N.C. Utilities Commission, to spend another $287 million on preconstruction costs for its proposed Lee reactor in Cherokee County, S.C. That would bring the total preconstruction tab to $459 million so far.

The Lee reactor, if built, would supply power to both states. But it's a big if: Duke's current cost estimate for the project is a whopping $11 billion, and that's before the U.S. Nuclear Regulatory Commission considers whether what's happened in Japan—where at least three reactors at the Fukushima Daiichi nuclear installation are threatening meltdown following the earthquake and tsunami—will require American nuclear plants to be built to even stricter safety standards.

Duke officials, including CEO Jim Rogers, were expected to argue that nuclear plants in the Carolinas are safer than Japan's because the earthquake threat is lower here—as well as the tsunami threat. The "design basis" for nuclear plants in the Carolinas, Duke spokesman Jason Walls said in a telephone interview, is the Charleston earthquake of 1886, the region's worst ever. It was a magnitude 7.6 earthquake, compared with the 8.9-level Japanese earthquake.

Nuclear plants have been "a safe, reliable and critical source" of electricity in North Carolina for the past 40 years, Walls said. "We owe it to our customers to continue to keep nuclear as an option in the future."

Nuclear is an option, however, only if the federal government will insure the reactors, and local utility customers are forced to pay for them upfront and bear the risk of cost overruns and possible cancellation, Bradford counters.

"Wall Street"—that is, private investors—won't pay, he adds. Or rather, what Wall Street would charge in interest to finance the construction of a nuclear plant that may never be finished would make the cost of nuclear power even less competitive than it is already, Bradford argues.

Right now, Bradford says, the estimated price for new nuclear power is about 12 cents per kilowatt hour, compared to 5-6 cents for natural gas-fired plants. The U.S. DOE estimates that natural gas, which is plentiful, will cost between 4 and 8 cents per kilowatt hour for the next 20 years.

Thus, Bradford says, while 18 utility companies, including Duke and Progress Energy, had applications on file with the NRC to build 27 reactors as of January 2009 (with more plans supposedly in the works), two years later the number of proposed reactors is down to 20. All of them are "afflicted with some combination of cost overrun and delay," says Bradford.

Most are being pursued "at extremely cautious rates of expenditures," Bradford wrote last fall in a paper titled "Honey, I Shrunk the Renaissance."

None of the 20 is certain to be built, Bradford wrote, despite the fact that Congress has appropriated $18.5 billion in loan guarantees to entice the construction of "first-mover reactors"—this on top of longstanding federal policy that insures the owners of nuclear plants against catastrophic damages caused by an accident, natural disaster or terrorist attack.

Bradford was in Raleigh to testify in opposition to Duke Energy's request on behalf of **NC WARN**, a watchdog group long critical of nuclear energy's costs. NC WARN advocates for alternatives such as wind- and solar-generated power and for stronger energy-conservation measures as a way of avoiding the need for coal-fired and nuclear power plants.

NC WARN is also part of a new coalition, **Consumers Against Rate Hikes**, which is organizing in response to Duke Energy's announced merger with Progress Energy and the prospect of higher rates if one giant utility company dominates the electric market in North Carolina.

Coalition members are alarmed at reports that Duke and Progress are lobbying lawmakers in Raleigh to change the existing CWIP process so consumers have even less protection than at present over rate increases tied to nuclear plant development.

Right now, the utilities must go before the N.C. Utilities Commission to justify their construction-related spending in advance—which is what Duke Energy was seeking to do in Raleigh this week. According to widespread media reports, however, the utilities want the law changed so that even that level of oversight is eliminated.

It's already been changed in South Carolina to what Duke's Walls called "pay as you go" CWIP financing—in other words, utilities there are assured that whatever they spend, they can recapture in their rates unless the S.C. utilities commission actually decertifies a project.

Walls said that Duke has thus far made no official effort to weaken the CWIP process here, and there is no legislation proposed to do so.

Still, the Coalition Against Rate Hikes is convinced that Duke and Progress are pushing a bill in the back rooms, and its members vow to fight them. "Customers," said Bill Wilson, advocacy director of AARP-NC, "should bear the cost of what they use, not give the utility companies a blank check for their construction costs."

The group underlined its point in a new radio ad that says in part: "Now power companies are asking the Legislature for permission to raise your rate, every year, to build power plants that won't produce electricity for many years. That's just wrong. It hurts families, particularly senior citizens on fixed incomes, and will send jobs out of state."

In addition to AARP and NC WARN, other members of the coalition include the N.C. League of Conservation Voters, the N.C. Justice Center, NC Fair

Share and the N.C. Council of Churches.

Correction (March 16, 2011): NC WARN does not support natural gas as an alternative to coal-fired and nuclear power plants.

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