How low can they go? Hansen, Shellenberger shilling for Exelon

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NM822.4553 While some potential legal challenges remain, the approval of the Exelon-Pepco merger by the Washington, D.C. Public Service Commission means that Exelon is now not only the largest nuclear powered utility in the U.S., it is the largest electric utility period. And with that steady stream of regulated, and non-nuclear, Pepco money filling its coffers, you'd think that Exelon's continuing "threats" to close up to three of its Illinois reactor sites unless it obtains more bailouts from beleaguered Illinois taxpayers and ratepayers would fall on deaf ears. Or maybe Exelon is now trying to achieve "too big to fail" status?

That Exelon's "threats" to close these reactors are considered by the utility – and its backers – threats at all is an indication of how perverse the discussion in Illinois is (and really, wherever Exelon operates, where such threats to close reactors without bailouts are commonplace). After all, these reactors (the single reactor at Clinton and the two-unit Quad Cities) are demonstrably uneconomic – they just can't compete with gas or wind, or solar for that matter. They also are aging and increasingly unsafe; the two Fukushima-clones at Quad Cities especially so, although Clinton too has a weak GE pressure suppression containment system.

And, given the large amount of wind power available to the region, and the potential for large amounts of solar power if Exelon didn't keep trying to shoot it down, they aren't needed for power supply reasons, nor to ensure low carbon emissions. Whatever of their power actually needs to be replaced, and it's not like Illinois is facing imminent power shortages, can be done so economically and quickly with renewables, efficiency and storage.

Enter the pro-nuke "environmentalists"

Enter the pro-nuke "environmentalists". Specifically, renowned climate scientist Dr. James Hansen and industry-oriented Michael Shellenberger of the Breakthrough Institute came to Illinois in early April to weigh in on the Exelon bailout debate.[1] And no, they didn't support renewables or other clean energy technologies. They didn't question whether the nation's largest electric utility really needs to gouge Illinoisans for another $300 million to keep aging, money-losing reactors open. Their message was pretty simple: in an open letter to Illinois legislators they, and several dozen others (most of whom are long-standing nuclear advocates) urged them to "do everything in your power to keep all of Illinois's nuclear power plants running for their full lifetimes."

Sometimes Dr. Hansen just makes you wonder if he isn't undertaking some bizarre experiment to see how far he can undermine his own credibility before it all blows up in his face. Back in November 2013 he and three colleagues wrote an open letter to us nuclear opponents urging us to reconsider nuclear power.[2] It's worth going back and reading some of that letter:

"As climate and energy scientists concerned with global climate change, we are writing to urge you to advocate the development and deployment of safer nuclear energy systems," the letter began. It added, "We call on your organization to support the development and deployment of safer nuclear power systems as a practical means of addressing the climate change problem."

And this: "We understand that today's nuclear plants are far from perfect. Fortunately, passive safety systems and other advances can make new plants much safer."

Note the emphasis: Hansen is clearly talking about "safer" nuclear reactors. To be precise, he was seeking environmentalist support for development and deployment of Generation IV reactors. Which, to date, do not exist.

NIRS and Civil Society Institute organized a response, signed by 300+ organizations, to Hansen's letter explaining our continued opposition to nuclear power as a climate response and calling for a public debate on the issue.[3] We never received a reply.

Now jump ahead to December 2015, just four months ago. Shortly before the Paris COP-21 climate talks, Hansen et. al. issued a new missive:

"Nuclear power, particularly next-generation nuclear power with a closed fuel cycle (where spent fuel is reprocessed), is uniquely scalable, and environmentally advantageous. Over the past 50 years, nuclear power stations – by offsetting fossil fuel combustion – have avoided the emission of an estimated 60bn tonnes of carbon dioxide. Nuclear energy can power whole civilizations, and produce waste streams that are trivial compared to the waste produced by fossil fuel combustion. There are technical means to dispose of this small amount of waste safely. However, nuclear does pose unique safety and proliferation concerns that must be addressed with strong and binding international standards and safeguards. Most importantly for climate, nuclear produces no CO2 during power generation."

While there is much to dispute in this paragraph, again note the emphasis on safety and "next-generation nuclear power" and continued acknowledgement of nuclear's "unique safety and proliferation concerns."

Fukushima-clone Quad Cities, which began operation in 1972, and Clinton, which began operation in 1987, clearly do not fall under the "safer" or "next-generation" nuclear memes. By endorsing not only their continued operation, but their continued operation enabled by forcing the people of Illinois to further line Exelon's pockets, Hansen has made a mockery of his earlier safety concerns and exposed himself as no different than any other Exelon-paid-for Nuclear Matters spokesperson.

Over the credibility cliff

But it gets worse, because by allying himself with the Breakthrough Institute's Shellenberger, Hansen has gone a step even further, a step right over the credibility cliff. Because as Midwest Energy News reported: "Shellenberger described next-generation technology as farther away from viability than he had previously hoped, and urged more focus on the nation's existing reactors. "How much safer could they be?" he said. "If you have nuclear plants that don't hurt anyone, keep running them."[4]

In other words, Shellenberger dismisses Hansen's support of Generation IV reactors in one phrase and argues in essence that because Fukushima hasn't happened yet at Quad Cities, well, hell, it never will; keep them running. But Fukushima did, in fact, happen. And there were supposed to have been lessons learned from that disaster. One of those is to be highly skeptical of GE Mark I nuclear reactor designs that are essentially identical to Fukushima, and that have been highly controversial even since their inception in the 1960s.

Thus, Hansen and Shellenberger (and the rest of the letter's signers, most of whom probably know little about the actual situation in Illinois) are now dismissing any pretense of caring about nuclear safety. For what? To enable Exelon, the largest electric utility in the nation, to gouge Illinoisans for another $300 million to keep open three aging, uneconomic and unsafe nuclear reactors, because of their low carbon emissions.

Arguing for environmentalists to consider Generation IV reactor technology was one thing. For many reasons, we rejected that approach and explained in detail why we did so, but at least it was a fair challenge. But actively working to prevent the shutdown of three reactors of 1960s nuclear technology under the pretense that it would matter for the climate is a leap too far. I hate to say it, but it is a leap so far that it brings into question Hansen's credibility on the far more important issues of his climate science generally. I have long trusted Hansen on climate issues; now, I am nervous about that. If he can be so wrong in Illinois, and so far removed from his own previous statements on nuclear safety, and seems willing to sell himself to the nation's largest, and quite possibly greediest, electric utility, well, how can I trust his other work?

I have been telling myself – and others – as Hansen's pro-nuclear statements have become more and more strident and outlandish over the past few years that, well, Hansen is a climate expert, not an energy expert, and there is a big difference between the two. That's still true, of course. But I'm having my doubts. Could some of his climate statements – that I'm not expert enough to evaluate the way I am expert enough to evaluate his nuclear statements – be as far removed from reality as his Illinois positions? Fortunately, there are a lot of other climate experts out there. I'll start listening more closely to them. And there are lots of real energy experts out there, but I already know them and I'll continue to listen to them. As for Hansen, I probably won't listen to him anymore on either subject.

As for Illinois, closing Clinton and Quad Cities would not only save its citizens' money and reduce the daily risk these dangerous reactors pose, it would help usher in substantial new clean energy investment, something the state desperately could use. That would be the kind of win-win situation – for the state and the climate, if not for Exelon – that the legislature hopefully will recognize.

Michael Mariotte regularly writes at the GreenWorld blog, www.safeenergy.org

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The steady decline of nuclear power in Europe

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NM822.4554 The European Commission (EC) released its 'Communication on a Nuclear Illustrative Programme' (PINC) in early April, along with a 'Staff Working Document' which informs the main report.[1,2] The report covers all aspects of civil nuclear programs in the EU, with an emphasis on required investments. Periodic publication of PINC reports is a requirement under Article 40 of the Euratom Treaty.

The report states that nuclear power produces 27% of electricity averaged across EU countries, the same amount as renewables. There are 129 nuclear power reactors in operation in 14 EU countries, with a total capacity of 120 gigawatts (GW).

The report predicts a decline in EU nuclear capacity up to 2025, followed by a slight increase, but nuclear capacity of 95–105 GW in 2050 is still projected to be below the current level of 120 GW. Nuclear power's contribution to total EU electricity generation is expected to fall from 27% now to 17–21% in 2050.

Thus the EC anticipates a continuation of a pattern of decline that is already underway in the EU: since the PINC 2007 report, no new reactor has come online, no reactor construction has begun, no new reactor has been ordered since Flamanville-3 in 2007, no new reactor has been connected to the grid since Cernavoda-2 in Romania in 2007, and 21 fewer reactors are operating (a 14% decline).