



BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the :  
2010 Electric Long-Term : Case No. 10-503-EL-FOR  
Forcast Report of Duke :  
Energy of Ohio, Inc. :

- - -

PROCEEDINGS

before Ms. Christine M.T. Pirik and Ms. Katie L.  
Stenman, Hearing Examiners, at the Public Utilities  
Commission of Ohio, 180 East Broad Street, Room 11-B,  
Columbus, Ohio, called at 10:00 a.m. on Monday,  
September 13, 2010.

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PUBLIC HEARING

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Good morning,

I would like to thank the Commission for the opportunity to appear here today and comment on docket number 10-503.

My name is Lee Blackburn and I'm a concerned citizen from southern Ohio who believes Duke Energy Ohio should be required to meet annual Energy Efficiency Resource Standards and Renewable Portfolio Standards as mandated under SB 221.

Having traveled some 75 miles to get here, I would urge the Commission to hold one or more similar hearings in Duke's service territory for the benefit of those citizens who will ultimately be affected by Duke's Long-Term Forecast Plan. To not do so invites criticism of the PUCO and participatory government.

Duke Energy Ohio's 2010 Long-Term Forecast Plan proposes four scenarios to meet SB 221 Alternative Energy Resources requirements by 2025. Astonishingly, all four scenarios rely almost exclusively on nuclear generation.

On page 141 of their Plan, they state: "Duke Energy Ohio's resource planning process seeks to identify what actions the Company must take to ensure a safe, reliable, reasonably-priced supply of electricity for its customers..."

To provide the Commission with a Plan presenting four scenarios, all of which includes nuclear as a "reasonably-priced supply of electricity", calls for serious questioning of the accuracy of their forecasting model and its underlying assumptions. Nuclear is not, has never been and will never be, a source for reasonably priced electricity.

Duke not only omits cost projections in their Plan, they go so far as to say they have not yet selected a specific technology. This is disingenuous at best, coming a year after they announced their intent to build the Areva 1,600 MW U.S. EPR reactor in Piketon, Ohio. After all, this is the primary reason Areva is a member of the Southern Ohio Clean Energy Park Alliance as identified by Duke in their Plan.

In public comments, Duke has estimated the cost to build the U.S. EPR reactor at \$10 billion but this is a significant underestimation. PPL Corp. has been working since 2007 to build the exact same reactor at their Bell Bend site on the Susquehanna River in Pennsylvania and they project potential costs of \$15 billion.

Even \$15 billion however, may be on the low side. Projected nuclear<sup>const</sup> costs have increased four-fold in the past decade and show no signs of slowing down. So, \$15 billion today could be \$50 or \$60 billion by the time the reactor is completed.

Still, these are best-case scenario projections, not taking into account construction delays and cost overruns. Of the 104 operating reactors today, not one was built on time and on budget. As an example, the Perry Nuclear Plant in northern Ohio was initially projected to cost \$632 million but had a final cost of \$6 billion for a ten-fold price increase.

Areva is currently building two EPR reactors in Western Europe, one in France, which is currently 25% over budget and two years behind schedule. The other in Finland is 90% over budget and four years behind schedule.

A 1,600 MW reactor would supply enough electricity for about 1.15 million households or almost twice the amount currently used by Duke's residential customers. Hence the likely reason Duke's four scenarios show only 400 to 800 MW from nuclear. In any case, to build a conservatively priced \$15 billion reactor would cost each customer approximately \$13,000 or an extra \$54 per month for the next 20 years.

Should the reactor encounter problems similar to the Perry plant, customers might be mortgaging their homes just to pay the electric bill and the possibility exists that could happen before the first kilowatt of power is ever even generated.

I would urge the Commission to require Duke to provide its customers with the least cost option and that is clearly not nuclear.

Comments by Lee Blackburn on PUCO Docket #10-503, September 13, 2010

Patricia A. Marida  
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September 13, 2010

My name is Patricia Marida and I live in Columbus, OH. I am speaking today on the Duke Energy Forecast Plan, Docket # 10-503.

For many years I have been concerned about the dangers and expense of nuclear power. I am distressed to learn that Duke Energy is now saying they cannot meet the energy efficiency requirements of Ohio's Energy Bill, SB 221. Even more distressing is Duke's proposal to instead build a nuclear reactor. This looks suspiciously like the Duke Energy plan *before* SB 221 was enacted.

The cost of nuclear power is far more than the cost of building a reactor. Billions of public dollars will need to be spent to clean up radioactive contamination from current nuclear plants. After over 60 years of nuclear experience in the United States, no solution has been found for the disposal of high-level radioactive reactor waste. Hardened onsite storage of this high-level waste, the most practical solution, will require hundreds of billions of dollars to isolate waste in canisters on or near their current sites, and surround with dirt to disguise and protect from terrorist attack. Who will be around in a few thousand years to pay to keep these dangerous nucleotides isolated?

The cost of nuclear power is far more than the cost of building a reactor. In 2006 the Dayton Daily News produced a series of articles entitled *Ohio's Nuclear Legacy: Troubled Past, Uncertain Future* which delineated among other things the toll on human health of workers at nuclear facilities in Ohio.

The cost of nuclear power is far more than the cost of building a reactor. At Piketon, USEC Inc. says they cannot complete their gaseous centrifuge uranium enrichment plant without \$2 billion in government loan guarantees. The Congressional Budget Office has estimated that 50% of nuclear loan guarantees will go into default. As is the custom, taxpayers risk footing the bill.

The cost of nuclear power is far more than the cost of building a reactor. Mining is leaving radioactive tailings exposed to the air and water on First Nations land in the US, Canada and Australia. Then we have milling, refining, transport, conversion to uranium hexafluoride, enrichment—which in the gaseous diffusion process at Piketon took as much energy as a large city. Also we have formulating the fissionable uranium into rods. Then there is the deconversion of the depleted uranium hexafluoride (DUF6) left over from the enrichment process to the more stable uranium oxide. This DUF6 is 99% of the original uranium, but it is not fissionable and therefore not usable for energy, however it is just as radioactive. The newly operating deconversion plant at Piketon will take 25 years running round-the-clock to deconvert the 40,000 14-ton canisters of DUF6 already on the Piketon site, not counting how much more will be generated from other enrichment facilities. Added together along with disposal, these supporting industries cause nuclear power to also come with a heavy carbon price, which means that nuclear power will not address but will worsen global warming.

In June 2009 a consortium of energy companies, which included Duke Energy, announced with enormous fanfare a proposal to build a 1600 megawatt reactor at Piketon, OH. It now would appear that the desire and inertia to build this plant is influencing Duke's ability, determination and commitment to comply with SB 221's directives for clean energy solutions.

Perhaps there is someone here who would be willing to clear up confusion about Duke's 4 alternatives for sizes of reactors in their Forecast. How is it that Duke can now propose varying sizes of reactors? What deals need to be made with the other entities in the Southern Ohio Clean Energy Park Alliance, SOCEPA, who proposed the initial 1600 MW reactor? Is Duke proposing to build a reactor at another site?

Other questions surface about Duke's supposed inability to meet the requirements of the law.

Innovations are happening all the time. New technology is continually being devised and revised, decreasing the amount of energy needed to operate renewable energy sources. New federal efficiency standards are being set for appliances and all types of electric devices. New homes are being built that are more energy efficient, and new jobs are being created all over Ohio insulating, sealing and otherwise decreasing the energy usage of older homes.

On the issue of jobs, new jobs are continually being created in energy efficiency and renewables. These jobs are happening all over Ohio. There is great advantage in decentralization. If a solar panel breaks down, or it is raining or the wind isn't blowing in one place, there is likely to be another place or where energy is flowing into renewables and little fix is necessary. On the other hand, when a reactor goes down, it could take months or even years to get back online. Transmission of energy from a centralized source requires immense, ugly and imposing electromagnetic field-generating transmission lines, usually requiring the use of eminent domain to construct.

With all this in mind, I would like to request that the PUCO look carefully at the costs of a nuclear reactor, which Wall Street won't fund and Duke won't ask its shareholders to fund or risk, and therefore would require public subsidy most of the way. Right now SOCEPA is asking for \$15 million taxpayer money to fund a site study for a reactor at Piketon. They won't even come up with their own money for this small venture. Numerous site studies have already been done at Piketon, which could be updated at a minimal cost leaving a nice profit for SOCEPA. Even if a reactor does not get finished, Duke can make profits all the way along. There are at least 130 US nuclear power plants that have been started but have never been operational, costing taxpayers and ratepayers tens of billions.

I am not convinced by Duke's calculations that they cannot meet Ohio's efficiency and renewable standards. The PUCO must require Duke to choose the safest and most economical options. I would request that the PUCO strongly enforce SB 221. If Duke is allowed to duck the law, other utilities will see this example and ask to follow suit.

Last but not least, I am not in the Duke Energy service area. Those who are must come a long distance to testify here today. The PUCO should acknowledge that they have not made it easy for affected Cincinnati ratepayers to testify on this matter, and hold further hearings there. Daytime hearings make it difficult for working Ohioans to testify, as well.



# PUBLIC HEARING SIGN-IN SHEET

COMPANY: Duke Energy CASE NO.: 10-503-EL-FOR  
DATE: 10/13/10 LOCATION: 11B

If you would like to provide testimony,  
please **PRINT** your name and address below.

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