

No nuclear power or House Bill 6

Another Viewpoint is a column The News-herald makes available so all sides of an issue may be aired. Connie Kline lives in Wiloughby Hills and is a past chair of the Ohio Sierra Club Nuclear-Free Committee.



Connie Kline

"Today's problems come from yesterday's 'solutions.'" From MIT systems scientist Peter Senge's 1990 book "The Fifth Discipline" — a prescient warning for trying to solve climate change with nuclear power.

The nuclear industry claimed electricity too cheap to meter, radioactive waste removed in five years, and a serious accident chance of one in 1,000,000 to one in a 1,000,000,000.

Nuclear power is not a pristine panacea for climate change and doesn't deserve bailouts like HB 6. It is a catastrophically dangerous, dirty, expensive, deteriorating technology that is not "clean," "indispensable," "carbon-free," or "renewable" (uranium is a finite, non-renewable resource).

Gregory Jazcko, former Nuclear Regulatory chairman, is the latest expert to warn, "I oversaw the U.S. nuclear power industry. Now I think it should be banned. The danger from climate change no longer outweighs the risks of nuclear accidents."

Perry and Davis Besse cost a whopping \$8.7 billion and billions more in maintenance, repairs, and 2016 subsidies. Many consider nuclear power the most heavily subsidized U.S. industry with new reactor costs approaching \$20 billion.

In 2018, grid operator PJM, determined that closing Perry and Davis-Besse would not destabilize the grid. Many reactors have closed without consequence.

The nuclear power life cycle produces copious carbon and other greenhouse gases from uranium mining, milling, refining, conversion, and enrichment; fuel fabrication; transportation; reactor construction, maintenance, decommissioning; and radioactive waste management.

Dr. Benjamin Sovacool, Ph.D,

and others conclude that the nuclear fuel chain emits more greenhouse gases per kilowatt hour than all renewables — twice as much as solar photovoltaic and six times more than wind or energy efficiency.

While nuclear generated electricity is low in carbon, it has never been "zero emissions." Reactors emit methane, a greenhouse gas, and radioactive carbon-14, with a 5,700-year half-life. The human body and the environment cannot distinguish highly volatile, biologically damaging radioactive carbon-14 from non-radioactive carbon.

Electrical and nuclear engineer Dr. Arjan Makhijani, Ph.D has said, "Carbon is not necessarily the most dangerous, element on the periodic table." Nuclear plants routinely leak and release into air, soil, and water carcinogenic, teratogenic, and mutagenic radionuclides which are chemically indistinguishable from non-radioactive, life-sustaining elements. The scientific and medical communities have determined that there is no safe dose or threshold of radiation exposure.

Ingested or inhaled radioactive strontium-90 and cesium-137 replace calcium and potassium respectively, irradiating bones and muscles for decades.

Carcinogenic, radioactive iodine-131 is absorbed by the thyroid which is why potassium iodide is provided to residents near reactors. Cobalt-60 is a liver, kidney, and bone carcinogen. Specks of inhaled plutonium-239, with a half-life of 24,000 years, can cause lung cancer. Miles of buried, inaccessible, deteriorating pipes have leaked tritium, which is radioactive hydrogen, and no technology can remove it from contaminated water.

Yet the NRC has extended all reactor licenses, including Davis-Besse's, no matter the operating record, and it routinely waives and defers inspections, standards, maintenance, repairs, and upgrades.

Over 32 years, disasters occurred at Three Mile Island, Chernobyl and Fukushima, and at many other reactors world-

wide since the 1950s. The U.S. has 23 Fukushima-type reactors at 16 sites. The NRC and other researchers postulate a 50% chance of another catastrophic accident in approximately the next 20 years.

To limit utility liability, Congress passed the 1957 Price Anderson Act which currently caps accident compensation at \$12.6 billion; however, a 1982 NRC study calculated a severe accident could cause 50,000 fatalities and \$314 billion in property damage — which is \$720 billion today. All private insurers exclude reactor accidents, and according to the NRC, state governments will cover "injury, sickness, disease, death, property damage, loss and living expenses for evacuees."

"A thousand-megawatt reactor contains as much long-lived radiation as...1,000 Hiroshima-sized bombs" from which humans and the environment must be protected forever, but the NRC admits that no engineered structure can last the time required to isolate these wastes and that leakage will occur.

Early warnings to resolve radioactive waste before licensing new reactors were ignored. There are 88,000 tons of irradiated fuel "temporarily" stored in problematic pools and casks at 75 environmentally unsuitable reactor sites in 33 states because no permanent repository exists.

In 2012, Ohio was 13th in the U.S. for wind capacity and investment; this virtually ceased due to a 2014 law which mandated the country's most restrictive wind turbine setbacks and severely impeded Ohio's 2008 renewable energy and efficiency standards. HB 6 will finish the job.

Even large majorities of conservative voters prefer solar, wind, and efficiency and "oppose fees to keep old nuclear plants operating." Conservative groups testified against HB 6, as "corporate welfare...(and) a glorified slush fund."

Ohio needs to strengthen renewable energy and efficiency standards, stop throwing good money after bad, close Perry and Davis Besse as scheduled, and retrain workers in renewable energy jobs.

Clean nuclear energy supports Ohio jobs and communities

News Herald

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Ron Young

Nuclear energy offers Ohio immense benefits, from its impact on clean energy efforts, local jobs, and our economy to the support it provides taxpayers and communities statewide. That's precisely why the impending premature closures of two of our state's nuclear power facilities—the Davis-Besse plant just outside Toledo area and the Perry plant in our neck of the woods—should be concerning to every Ohioan.

Thankfully, we have strong advocates in House Speaker Larry Householder, Lake County Representative Jamie Callender and others who understand the economic and environmental importance of these facilities.

They recently sent legislation to the Ohio Senate that will keep Perry and Davis-Besse open.

I call on the Ohio Senate to quickly pass this jobs-saving bill into law.

Forcing Perry and Davis-Besse to close well before their time. We ought to be doing everything we can to ensure they continue to operate and serve our communities.

During my tenure as Rep-

resentative for Ohio's 61st House District, supporting jobs and a strong economy in Lake County and across the state was always of paramount concern for me.

Combined, these two nuclear power plants support 4,300 jobs, over 700 of those jobs directly employed at the

Perry plant.

These jobs represent thousands of families that rely on the continued operations of these nuclear plants. The negative economic impact of these job losses would reach even further, however, as local businesses—including restaurants, retailers, grocery stores, and others—would also feel the pinch.

I am no stranger to public discussion on complex issues and I understand that there could be differing opinions about how to support the nuclear industry.

While some may say that we should allow these plants to prematurely shut down, I would argue that we should be doing everything we can to enact policies that recognize the important role these plants play for our energy supply and the state's economy.

Altogether, forcing these plants into early retirement would threaten hardworking Ohioans while reducing Ohio's gross domestic product by more than \$500 million annually. That's a hit that Ohio can't af-

ford to take, now more than ever.

Moreover, the impact on local communities that rely on the tax contributions could be dire.

The Davis-Besse and Perry nuclear facilities pay more than \$30 million in state and local taxes annually. That revenue helps support police forces, firefighters, and other first responders.

If these plants are forced to close, some communities may have to choose between raising taxes or cutting critical services.

Consumers would feel the pinch as well, as electric bills would likely increase if we allow these nuclear plants to shut down ahead of schedule. One recent study by the Brattle Group suggests that the retirement of these plants would raise gross electricity costs for customers by \$400 million—that means all of our monthly bills go up. No matter how you slice it.

There is simply no good argument to make for shuttering these vital power plants while they are still serving such critical functions.

Ohio communities should continue to benefit from the jobs, economic contributions, and reliable energy that nuclear power provides our state. I thank my former colleagues in the Ohio House for their leadership.

Working together I am certain we can keep Perry and Davis-Besse open.