Testimony of Sam Belcher
Chief Nuclear Officer, FirstEnergy Nuclear Operating Company (FENOC)

Before the Ohio Senate Public Utilities Committee
Hearing on Ohio Senate Bill 128

January 25, 2018

Chairman Beagle, Vice Chairman LaRose, and members of the Ohio Senate Public Utilities Committee, my name is Sam Belcher, and I am Chief Nuclear Officer for FirstEnergy Nuclear Operating Company (FENOC). In that role, I am responsible for the overall guidance and strategy of FENOC, including interfacing with industry leadership to drive standards and best practices at our plants and to address the challenges that impact nuclear operations industry-wide. I also sit on the board of FirstEnergy Solutions, the subsidiary of FirstEnergy that owns the company's competitive power plants. I am pleased to appear before you today to offer perspective and support for Senate Bill 128.

As many who testified about Senate Bill 128 last year explained, nuclear plants across the country are facing an uncertain future. The challenges aren't the result of dated technology that is unable to compete, but rather a federal competitive market design that only places value on short-term costs and ignores attributes such as environmental impact, fuel security and grid resiliency.

Consequently, nuclear plants operating in the competitive market are not profitable and have begun to shut down well before the end of their useful operating lives. FirstEnergy's nuclear plants – the Davis-Besse Nuclear Power Station in Ottawa County and Perry Nuclear Power Plant in Lake County – are not immune to this problem.

The challenges facing our plants is a top line issue – they simply do not generate the revenue necessary to cover the expenses associated with safely operating the facilities. That's not a result of an inflated or unusually high operating cost structure in FENOC's nuclear fleet. We routinely benchmark our industry peers and have found we rank among the top 25 percent when it comes to controlling costs.

FENOC has already engaged in a concerted effort to reduce discretionary spending at every opportunity. Decreasing the frequency of services like housekeeping and landscape maintenance is easy, but fixed costs like labor, required equipment maintenance and regulatory expenses aren't so simple to change. And, of course, we won't undertake any cost-cutting initiatives that would risk the safe or reliable operation of the plants.

My industry peers share this perspective. An executive from Exelon, the largest nuclear operator in the United States, testified before this committee last June that given the opportunity, his company would not take Ohio's nuclear plants – even at no cost – because there is no way to operate them profitably under current market rules. The simple fact is that no amount of budget trimming will make these nuclear plants profitable if energy market designs are not addressed.

The consequences of letting market issues languish – and risking the closure of additional clean, reliable nuclear generating plants – are nothing short of dire. The losses suffered by communities and states in which nuclear plants have closed are considerable. For example:

- About $300 million a year no longer circulates in Vermont's economy due to the shutdown of Vermont Yankee in 2014, with small businesses impacted most by lost revenues as high as 20 percent. Housing values in the area have plummeted, and there is a glut of homes on the market as residents move away to find jobs.
- The U.S. Commerce Department reported a 7.5 percent loss in gross domestic product for the Homosassa Springs, Florida metro area in 2014 – which directly correlates with the closure of the Crystal River Nuclear Plant. The loss was the worst decline among the 382 largest US metro areas studied that year.
- The 2013 closure of Dominion's Kewaunee plant in Wisconsin caused the loss of roughly 70 percent of the town of Carlton's yearly budget.

Rebounding from these losses can take years. For example, in 2013 – seventeen years after the Maine Yankee nuclear plant closed and 600 workers lost their jobs – the area

was still suffering from property taxes that had spiked by more than 10 times; more than double the number of residents living in poverty; and a drastic cut in town services and jobs.

The economic, environmental, fuel security, resiliency and other benefits of these plants simply cannot be overstated. Ohio's annual gross domestic product receives a more than $500 million annual boost from nuclear operations in the state, and millions in tax dollars are generated each year to fund schools, police and fire departments and other public services. Approximately 90 percent of our carbon-free electricity comes from these plants, and their operation avoids the annual production of carbon emissions equal to nearly 2 million passenger vehicles. Since these plants also have two years-worth of fuel on site at any given time, they are not subjected to environmental or supply chain challenges than could interrupt their operation.

To those that say nuclear plants are old and have reached the end of their lifecycles – that could not be further from the truth. All of our nuclear facilities have been maintained to the highest standards, and actually, very few of the components are in their original condition. They have been replaced and upgraded over time as technology has evolved, much like you would do in your own home.

All of us recognize that replacing the windows, roofs and heating and cooling systems in our homes as they age is a prudent investment – and we do so with modern, enhanced technologies that improve our home's original condition and extend their lives by decades.

The same is true of our nuclear plants, and as a result, these facilities can operate for 60 years and beyond. In fact, Dominion has announced it will seek a license extension for its four regulated nuclear units that would allow those facilities to operate for a total of 80 years.

Clearly, we have the steel on the ground that is capable of providing the clean, safe and reliable electricity that our country needs and wants. Now, we must find solutions that ensure these facilities continue to operate for the long term, providing direct benefits to our state's consumers and communities.

The timeline for identifying a solution to preserve nuclear plants is short, and the need for action is urgent. The Federal Energy Regulatory Commission (FERC) recently terminated rulemaking that could assist baseload coal and nuclear plants and instead initiated additional resiliency studies in regional markets, signaling that federal action is still months – if not years – from occurring. And while PJM Interconnection, the entity responsible for maintaining our regional energy market, is considering energy price formation changes and capacity reforms separate from these studies, there are still more questions than answers about how nuclear plants may benefit. As result, any federal or regional market action would likely be too late to assist in Ohio.

We believe the highest chance of success for a near-term solution is through state legislation. New York and Illinois have both recently implemented programs that recognize the value of nuclear plants in their states, and other states in the Midwest and Mid-Atlantic regions are considering similar solutions. The results of these initiatives are encouraging – with new programs in place, four nuclear power plants in New York and Illinois that previously had been slated for premature closure will continue to operate and provide economic and environmental benefits.

The updates to the legislation offered by Senator Eklund in October balance the costs to customers of creating a clean energy jobs program with the benefits received from keeping Ohio's nuclear plants operating. The legislation is expected to generate approximately $180 million annually. While this is less than the original legislation and does not provide the same long-term certainty, it increases the likelihood of keeping Davis-Besse and Perry operational throughout the life of the program.

I've spend my entire career serving in this industry because I believe in the technology and the numerous benefits nuclear power provides. To think that we are flirting with the chance of letting it disappear forever is unconscionable to me. I very much appreciate the opportunity to share my thoughts with you on this critical and timely issue, and I once again urge you to take decisive action to ensure the continued operation of Ohio's nuclear power plants. Thank you.