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Testimony by William Siderewicz, P.E., Founder/President Clean Energy Future

Ohio House Public Utilities Committee

HB 178: Zero-Emissions Nuclear Resource (ZEN) Legislation

Chairman Seitz and members of the Ohio House Public Utilities Committee, I'm Bill Siderewicz, President of Clean Energy Future (CEF). It is an honor and a pleasure to be here today to share with you my 37 years of experience in developing, financing and building private sector electricity generation facilities. To date, I have been involved in developing 35 such non-utility plants, virtually all being gas-fired facilities. Today, 10 modern gas-fired plants are in progress in Ohio and 15 more will be needed.

By the end of 2017, I will have delivered \$4.5 billion of new private investment in modern gas-fired generation to Ohio via five (5) projects, all located in FirstEnergy's territory. We bring the following, as a direct result:

- 8,000,000 man hours of construction labor (4,000 jobs)
- 125 new full time on-site jobs
- New state sales and income tax, local property tax, local salary tax, local income tax, and purchase of municipal services (such as water and wastewater services)
- \$70 billion in positive economic "ripple effect" in Ohio over next 40 years
- Construction of a new soccer field, running track and previously idle indoor pool at Lordstown High School.
- Support of local charitable and community benefit programs (United Way, 4-H, Boy Scouts, and Inspiring Minds, as a few examples)

I am happy to report that a CEF full-scholarship recipient will be traveling for the first time outside of Toledo for her first professional job with Fluor Corporation in Virginia. CEF restarted Megan's previously abandoned college education effort and she is now off to a summer internship as an electrical engineer. This is quite a change from a series of pre-college local waitressing jobs. She will graduate from the University of Toledo in 2019 as an engineer, to complete a simply amazing success story. Similarly, Coach Tressel, President of Youngstown State University, is helping us with similar private sector-college student cooperative partnerships in Mahoning and Trumbull Counties. CEF, like other IPP developers building new generation in Ohio, care deeply about the people in the communities in which they are located.

Also, unlike monopoly utilities, we expend our own income, and not ratepayer funds, to support local causes.

Thanks to the wisdom and foresight of the Ohio legislature in 1999, with Senate Bill 3, there is now a highly successful cost-saving competitive market for power generation and purchasing in Ohio.

I am often asked "How does the average citizen and Ohio business benefit from what CEF and other non-utility companies are building?" The answer is quite simple and most positive. Ohio's Appalachian Basin natural gas is the third largest supply in the world and lowest cost in the world. When low cost gas is coupled with the most efficient technology, electricity costs are at all-time lows. Via a free market purchasing system called "Customer Choice" everyone can bypass their local high-cost monopoly utility (FirstEnergy, AEP, Duke Energy, and DP&L) and buy the lowest cost power in Ohio. The State's website: www.energychoice.ohio.gov is the free site that enables customer access to these savings. The Ohio State University study of January 2017 has shown that Customer Choice vs. the pre de-regulation monopoly utility system saves Ohioans \$3,000,000,000 per year! The attached Figure 1 illustrates why power supplies from IPP plants like ours are the engines that drive customer savings through Customer Choice.

Non-utility gas projects can make electricity for 3.2¢/kwh, on a wholesale basis, marketers add on an administrative margin and retail it for 4.0-4.2¢/kwh, via Customer Choice. At the opposite end of the spectrum, Ohio utilities remain invested in obsolete and uneconomical coal and nuclear plants. As a result FirstEnergy charges its residential customers 5.2-5.4¢/kwh. As you can see, costs for coal-based generation and nuclear generation are likewise uneconomical.

This figure illustrates how these Ohio utilities are grossly "out of market" with their obsolete generation resources. These market dynamics bring us to the problem at hand. If a utility company is not competitive within the Ohio market, do we (a) subsidize or bailout the utilities to keep them competitive or (b) allow utilities to retire uneconomical assets?

We are here today to describe why the House should summarily reject any form of ZEN as proposed by FirstEnergy. It is nothing more than a valueless bailout, subsidy or tax!

FirstEnergy's CEO has told us why he needs a \$5.6 billion bailout, called ZEN (\$350 +mm/yr x 16yr.), we don't have to guess or postulate. First, Mr. Jones told his investors he will sell or close both Ohio nuclear plants in 2018. Second, within page 1 (item 3) of his ZEN testimony he states FirstEnergy's "nuclear power plants in Ohio are losing money." If any plant is losing money, it can't be sold unless there is a major write-down of debt or reduction in operation and maintenance costs or increase in revenues (which ZEN is). If the nuclear plants are to be closed, then \$100's of millions are need for the multi-year decommissioning process. It is obvious to all of us in the private sector that ZEN has only one objective ... provide bailout funds for FirstEnergy, their senior management, their investors and some potential out-of-state buyer of the nuclear plants (if they're sold) or for decommissioning.

FirstEnergy vastly exaggerates the so-call environment attributes of its nuclear facilities. The Ohio EPA's records and permits show that fossil fuel back-up generators at nuclear plants are

allowed to emit tons of emissions per year. Nuclear plants use 300% more water than a modern gas-fired plant of equal size. Of course, nuclear plants are toxic nuclear waste storage sites, since nuclear fuel is stored on-site. FirstEnergy will soon be experiencing the multi-decade costs of assuring that on-site nuclear waste does not become a "melt down" problem, via decommissioning. ZEN has nothing to do with claimed environmental superiority of nuclear power.

Some might argue that 1,200 nuclear plant jobs are worth a bailout price of more than \$350 million per year. That's \$292,000 per job, per year. Such a notion is outrageous. CEF is building a new gas-fired plant in Lordstown, Ohio. With just a two week notice, Mayor Arno Hill (R-Lordstown) was informed by General Motors that 1,100 jobs would be cut in January 2017. Lordstown is a village with a 3,300 population. Why isn't Lordstown provided a state subsidy of more than \$350 million per year, like FirstEnergy? What about every other Ohio town and city that loses an employer? Lordstown doesn't have 17 lobbyists and endless lobbying funds to even ask for such a subsidy, but FirstEnergy does. I have lost my job in the past via Chapter 11 Bankruptcy, and many of you may have as well. A change in business climate is not a good reason to demand compensation from your neighbors. Instead, it's a signal to "move on."

Fuel diversity and power supply security have been discussed as reasons to support uneconomical coal and nuclear plants. Utility owners seem to be concerned that too much modern gas-fired generation is unhealthy. Figure 2, attached, shows that for multiple decades, utilities supplied about 90% of Ohio's power from coal. When these same utilities were grossly "over-weight" with coal and profiting handsomely, they said nothing about fuel diversity. This is quite the hypocrisy as today's economics now point to low-cost gas as a preferred source of electricity. If electricity security is an issue, then nuclear plants represent the highest risk, not the lowest. One ISIS rocket launched into the side of a nuclear dome or into a 20-story cooling tower would take out a nuke for years. Dare any of us think of the nuclear mess Cleveland, Lake Erie, Buffalo, Toronto, Lake Ontario, and Montreal would have if a nuclear attack were to happen in Ohio?

I have also been asked: "why don't Ohio's utilities do what CEF does?" The simple answer is: They have tried and have failed. First Energy has attempted to develop four (4) gas-fired projects and all FAILED. The PJM web site shows their project (queue) numbers: X1-064, Y1-035, Y1-036, and Z1-030 (1,656 MW). FirstEnergy built a 10-mile, multi-million dollar gas line to serve its West Lorain gas/oil peaker plant, but has no ability to obtain gas (instead burns oil). This is equivalent to building a bridge across a river, where one end of the bridge never meets land. First Energy's CEO, is an engineer, and testified (pg. 4) that nuclear plants ... "are also nearly twice as efficient as natural gas-fired plants." Every freshman engineering student at OSU knows this is an impossibility and therefore is not true. A modern gas-fired plant is 61% efficient. To be twice as efficient, a nuclear plant would have to be 122% efficient, which would defy the laws of physics. In reality, nuclear plants are half as efficient as gas-fired plants.

There is no need for a \$5.6 Billion ZEN Bailout, and it should be rejected. ZEN is equivalent to increasing the previously suggested state sales tax, which was proposed at 0.5%, to an even higher 0.75%. The Ohio House has already rejected such a 0.5% increase for taxpayers when it passed the state budget last week and should reject this equivalent added tax increase as well.

Artificially keeping uneconomical nuclear plants alive through subsidies has a far more damaging impact ... namely, sending false market signals into a free-market PJM system that will deter future investment by non-utility entities like CEF. ZEN also undermines the very essence of electricity cost savings via Customer Choice while simultaneously ignoring the electorate's voice that they reject utility bailouts, by a 7:1 margin.

Ohio is in a unique position of sitting on top of the lowest cost gas in the world, with 100's of years of supply. The current free market system for electricity generation and purchase is on pace to meet Ohio's needs with in-state plants ... while supplying electricity at rock bottom prices. First Energy's ZEN Bailout should not be allowed to de-rail such an important strategic economic system for Ohio's future.

Thank you for the opportunity to be with you today in Columbus.

Figure 1
Total Generation Cost of Electricity : Ohio

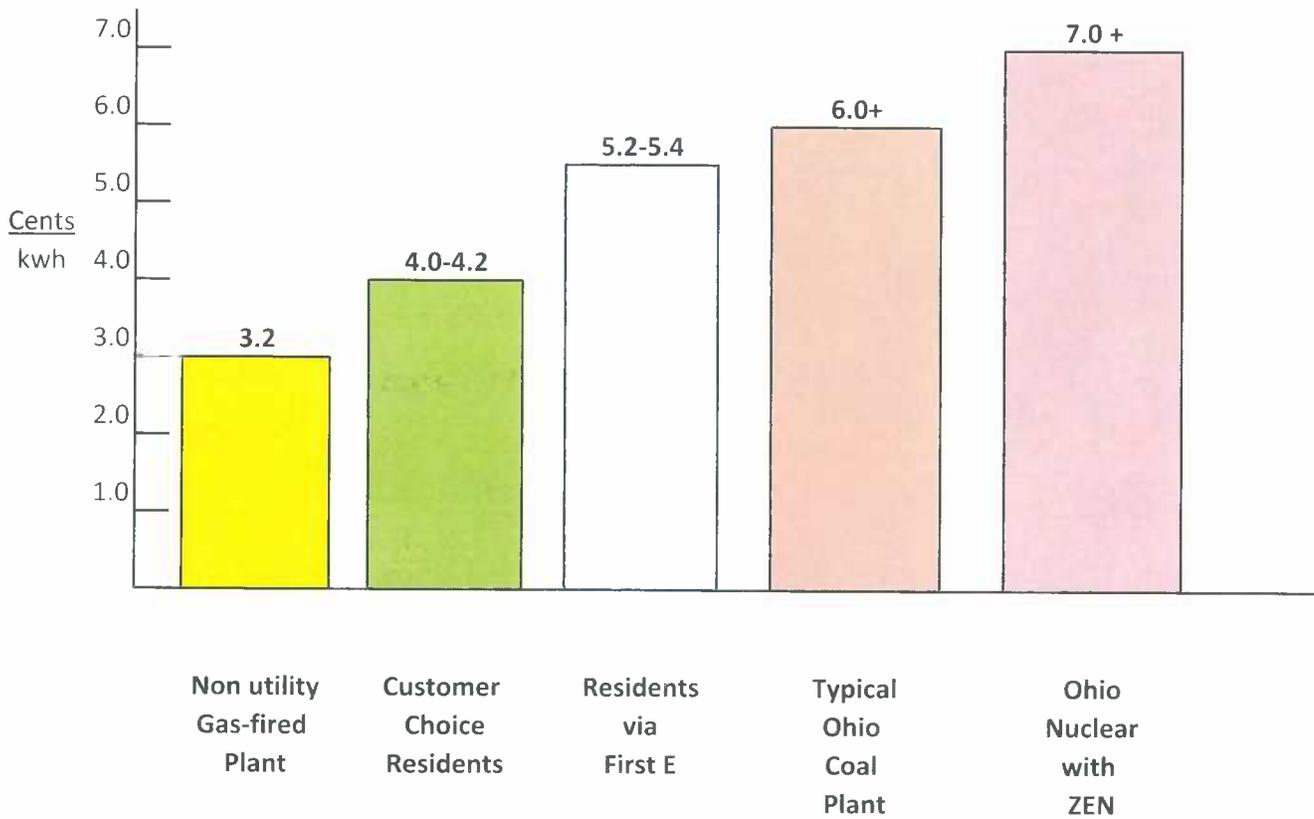


Figure 2
Historical Fuel Mix : Ohio

