The Buckeye Institute Policy Brief

Nuclear Power Subsidy: A Radioactive Proposal for Ohio

By Quinn Beeson

Ohio has two nuclear power plants. Both the Davis-Besse and the Perry nuclear plants are owned and operated by FirstEnergy. Both plants are failing. FirstEnergy's latest proposal to save the plants—the Zero-Emissions Nuclear Resource program, or "ZEN"—calls for more government subsidies and higher costs for local electricity consumers. The power company, of course, argues that keeping the plants online will save jobs, depress power prices, and provide Ohio with a reliable and diverse source of electricity. FirstEnergy, however, fails to account for the market distortion and other negative effects that the ZEN subsidies will have on employers and the broader market. The proposed subsidies will spike electricity prices and deny other businesses and employers' growth and job creation. The better course would be to maintain free and competitive energy markets, even if it means that Ohio loses two unprofitable nuclear plants.

The Call for ZEN Subsidies

Since the late 1990s, Ohio has fostered competitive, customer-centric electricity markets. As electricity rates have risen across the country, Ohio and other states with restructured wholesale markets have enjoyed smaller price increases due to more competitive market conditions. Ohio's deregulation has increased competition and given consumers more choices for and control over meeting their energy needs.[1] With more competitors—and a government subsidized renewable energies market—electricity suppliers must offer more benefits, better products, and different packages in order to succeed.[2] Failing to provide those benefits can cost suppliers market share and profits as the market determines economic "winners and losers." Natural gas, for example, has been booming in Ohio, offering lower prices and directly competing against FirstEnergy's clean nuclear power.[3]

Understandably, FirstEnergy wants to get out of the competitive electricity-generating business and focus on the more monopolistic electricity-distribution business, and it hopes that ZEN subsidies will make the nuclear plants more attractive to potential buyers.[4] After several failed attempts to gain direct income support for their power plants from the Public Utilities

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[1] Meehan, Eugene T. and Wayne P. Olson, ***Competitive Electricity Markets: The Benefits for Customers and the Environment***, NERA Economic Consulting, February, 2008.

[2] Dinan, Terry, senior advisor of microeconomic studies division, Congressional Budget Office in testimony before the U.S. House of Representatives Subcommittee on Energy, Committee on Energy and Commerce, "**Federal Support for Developing, Producing, and Using Fuels and Energy Technologies**," March 29, 2017.

[3] John Funk, "**FirstEnergy to Seek 'Zero Emission Credits' for Its 2 Ohio Nukes**," *The Plain Dealer*, February 21, 2017.

[4] Robert Walton, "**FirstEnergy to Seek Supports for Ohio Nuclear Fleet as it Exits Competitive Power Markets**," *Utility Dive,* February 23, 2017.

Commission,[5] FirstEnergy now asks the General Assembly to impose a "nonbypassable" rider on all FirstEnergy customers and require them to pay for "Zero-Emissions Nuclear Credits" (ZENC) for each unit of electricity produced by Perry and Davis-Besse.[6] But even FirstEnergy's own chief executive officer acknowledged doubts that the massive ZEN subsidies—approximately $300 million per year for at least 16 years—would be enough to sell the plants.

FirstEnergy's Claims and the Problem with ZEN Subsidies

Under the ZEN program, *all* customers in areas served by FirstEnergy—regardless of their actual electricity provider—will pay more for electricity to cover the cost of the ZEN subsidy. Electricity retailers will have less flexibility to offer consumers better deals because customers will pay the charge even if they change electricity suppliers. To offset these concerns, FirstEnergy has marshalled several straightforward, but unconvincing arguments in favor of the ZEN subsidies.

For starters, FirstEnergy has warned the General Assembly that the Davis-Besse and Perry nuclear plants will close without ZEN subsidies, and claims that these closures will cost consumers "$177 million more for electricity annually, and almost $1.3 billion more in present value over the next 10 years."[7] Ordinarily such a claim would be consistent with basic economic axioms: when suppliers exit the marketplace, competition declines and prices rise. But in this case, FirstEnergy's claim fails to account for the cost of the subsidy itself: approximately $300 million per year. FirstEnergy would have customers pay $300 million per year to protect $177 million per year of savings provided by two failing plants. Thus, the ZEN program would actually *cost* customers an additional $123 million per year for the privilege of keeping the plants online.

Second, FirstEnergy contends that Perry and Davis-Besse provide jobs and bolster their local tax-bases. The two plants employ approximately 1,400 people directly, and FirstEnergy claims that each plant helps support another 4,000 jobs in their respective communities. Save the plants to save the jobs, says FirstEnergy. Some local officials have also cautioned that closing the plants would cost communities local tax dollars. Once again, however, FirstEnergy touts the subsidies' benefits without accounting for their costs. The higher electricity prices spurred by the ZEN program would force other businesses to reduce payroll or scale back hiring and expansion. These tradeoffs will be especially significant for manufacturers that use a lot of electricity. The Ohio Manufacturers Association estimates that the ZEN program would cost "medium" manufacturers approximately $43,000 per year and "extra-large" manufacturers approximately $5.7 million per year—every year for at least 16 years.[8] And, as The Buckeye Institute has demonstrated, artificial electricity price increases of just a few percentage points can cost Ohio tens of thousands of job opportunities and billions of dollars in GDP over the course of a

[5] Robert Walton, "**Eyeing FERC End-run, Ohio Utilities Keep Pressing State Regulators to Support Old Plants**," *Utility Dive*, July 26, 2016.
Robert Walton, "**FirstEnergy Pushes for Rehearing of Subsidy Proposal**," *Utility Dive*, November 17, 2016.
[6] Address Zero-emissions Nuclear Resource Program, HB 178, 132nd Ohio General Assembly, (2017).
[7] Jones, Chuck, president and chief executive officer, FirstEnergy Corporation in **Testimony before the Ohio House of Representatives Public Utilities Committee**, 132nd Ohio General Assembly, April 25, 2017.
[8] John Seryak and Kim Bojko to OMA Energy Group, memorandum, "**Analysis of SB 128/HB178 – Zero-Emissions Nuclear (ZEN) Credit Program**," April 20, 2017.

decade.[9] The ZEN program would be no exception, likely costing Ohio more jobs and more growth than it would save—and ultimately offsetting losses to local tax-bases by raising electricity prices for thousands of Ohio families and businesses.

Finally, FirstEnergy argues that the Davis-Besse and Perry plants are critical to Ohio maintaining a reliable and diverse energy supply. According to FirstEnergy, the two nuclear plants provide a reliable alternative to an over-reliance on Ohio's natural gas power plants. But subsidizing the Davis-Besse and Perry plants will not necessarily strengthen or diversify Ohio's energy supply. The state's electricity grid is operated by PJM, a federally-regulated nonprofit company that spans all or part of 13 states. The grid thus has healthy reserves of extra power plant capacity, including nearby nuclear plants that make the subsidies for two unprofitable nuclear facilities not worth their $5 billion price tag.[10]

Conclusion

FirstEnergy is not the first power company to propose ZEN-like subsidy programs. In fact, the ZEN program is largely modelled on New York and Illinois programs currently facing legal challenges in federal court. Critics of the Illinois program, for example, have rightly contended that, much like ZEN, Illinois' "ZEC program is not designed to serve the public interest. These subsidies were requested by the owners' specific uneconomic generating units ... to improve the profitability of specific generating units."[11] Ohio can learn from Illinois' mistakes and should resist the temptation to save the unprofitable few by taxing the many. Rather than use government coercion to force customers to pay for inefficient power services, FirstEnergy should either close the nuclear plants or sell them to more efficient operators. Ohio's energy market should remain free and competitive, so that the market—not the government—decides the economy's winners and losers.

[9] Divounguy, Orphe, Rea S. Hederman, Joe Nichols, and Lukas Spitzwieser, ***Economic Research Center Analysis: The Impact of Renewables Portfolio Standards on the Ohio Economy***, The Buckeye Institute, March 3, 2017.
[10] Nichols, Joe, policy analyst, The Buckeye Institute in **Testimony before the House of Representatives Public Utilities Committee**, 132nd Ohio General Assembly, May 16, 2017.
[11] S&P Global Platts; "**PJM Market Monitor Intervenes in Illinois ZEC Lawsuit**," March 20, 2017.

About the Author

Quinn Beeson is an economic policy analyst at The Buckeye Institute's Economic Research Center.

In this role, Beeson assists Buckeye's economist with analyzing the impact of federal and state government policy on economic outcomes in Ohio.

Prior to her position at Buckeye, Beeson graduated from **Brigham Young University-Idaho** with a bachelor of science degree in economics. Her senior paper, which focused on the benefits and further potential of water leasing, is being presented at the annual **Universities Council on Water Resources** conference in Colorado this summer.

Beeson has participated in the **Koch Internship Program** learning free-market principles. She also worked as the energy and environment intern at the **Heritage Foundation**, where she collaborated with a team drafting blogs and policy briefs focusing on energy, environment, and agricultural issues from an economic perspective.

A native of Idaho, Beeson enjoys spending her free time reading, trying new foods, and hiking. She currently lives in Columbus, Ohio.

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