

REREGULATING NUCLEAR GENERATION IN OHIO:

WHY REVIVING RATEPAYER RISK IS THE WRONG STRATEGY TO ENABLE NEW NUCLEAR POWER

NOPEC
Northeast Ohio Public Energy Council

Interest in nuclear energy has increased in recent years. Rising electricity costs and demand for new generation, driven principally by data centers, are fueling this renewed focus, as advances in nuclear power promise to help constrain costs.

Now policy makers are considering how best to enable nuclear power development in Ohio. Some members of the Ohio General Assembly have called for reregulating electricity generation, in part, by allowing distribution utilities in Ohio to build, own and operate new nuclear power plants.

The data collected for this report underscores that reregulating nuclear generation would shift its high and historically overrun-prone costs to ratepayers, raising electricity bills and weakening the competitive market that has delivered substantial savings in Ohio.

HISTORY OF NUCLEAR GENERATION IN OHIO

Ohio deregulated its electricity generation industry in 2001 directly in response to the "rate shocks" of the 1980s caused by nuclear power cost overuns, which get added to the rate base and drive up energy costs. States that had invested heavily in nuclear power were experiencing a rapid rise in the cost of electricity that destabilized their economies. Ohio was one of those states – it had three different nuclear energy plants that experienced massive cost overruns, one of which was ultimately abandoned before completion as uneconomical. By the mid 1980s, the industrial cost of electricity was as high as $0.15/kWh in 2026 dollars, about 50% higher than it is today under Ohio's restructured electricity markets. Residential rates were at an astounding $0.25/kWh.

Cost Overruns for Ohio Nuclear Power Plants, 2026$

Project	Projected Cost	Final Cost	Cost Overrun
Davis-Besse No. 1	$557 million	$2.7 billion	4.8x
Zimmer Nuclear Power Station	$2.2 billion	$5.4 billion (abandoned)	2.5x
Perry Nuclear Plant	$5.3 billion	$16.9 billion	3.2x

In stark contrast, the successful deregulation of the natural gas industry in the 1980s led the U.S. to develop wholesale electricity generation markets and to open access to interstate transmission lines. Between 2001-2011, Ohio transitioned to deregulated markets and began to attract competitive retail electric supply companies. As a result of this competition, Ohio ratepayers saved an estimated $37 billion between 2011-2024 – averaging nearly $3 billion per year. **By customer class, annual savings from deregulation have averaged $54,840 for industrial, $1,492 for commercial and $261 for residential users.** Today, around 75-80% of users in Ohio elect to shop for their generation.

Year	Total
2011-2018	$21,278
2019	$2,725
2020	$2,612
2021	$2,714
2022	$2,734
2023	$2,702
2024 (est.)	$2,749
Total	$37,513

Total Savings Due to Deregulated Electricity Generation Markets in Ohio 2011 - 2024
(millions of dollars)

Amounts are in 2023 dollars.

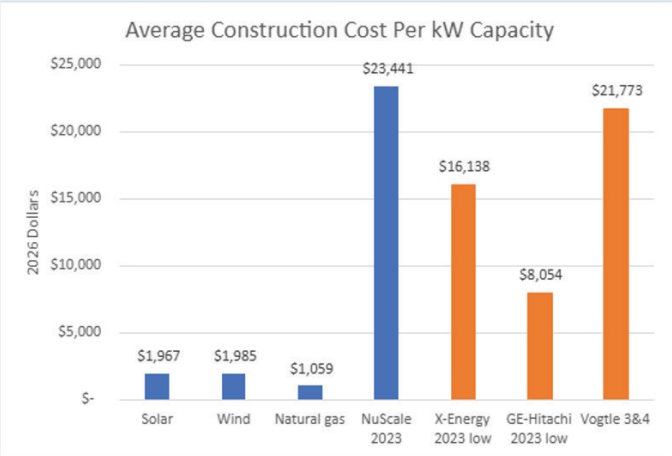
THE RISK OF REREGULATION

Reregulating nuclear generation will likely yield the same result as before: undisciplined investment decisions by utilities, leading them to overbuild generation and to underestimate time and costs.

Construction costs for nuclear power plants are five times higher than for wind, solar or natural gas generation plants.

To read the full study, visit nopec.org/whitepapers

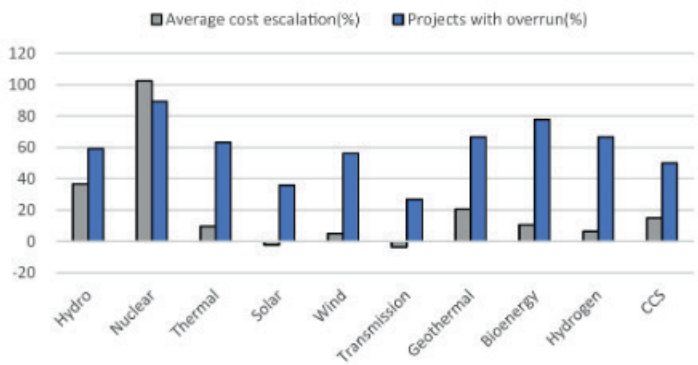
Average Construction Cost for Different Generation Source (2026$)



Source: EIA for wind, solar and natural gas construction costs, and IEEFA for nuclear construction costs. Orange shows projected costs and blue shows actual costs.

A recent study from Boston University which looked at international generation costs over 50 plus years found that while most new generation suffers from cost overruns, nuclear power continues to be the worst offender, with an average of 102% compared to an average overall of 40%.

Figure 12: Frequency and Magnitude of Cost Overruns



Frequency and Magnitude of Cost Overruns of 662 Energy Infrastructure Projects from 1936 to 2024. Source: Sovacool and Hanee, Energy Research.

The U.S. Energy Information Agency projects that the U.S. will need another 600 terawatt-hours (TWhs) per year of generation by 2036. Ohio's 3.9% of this new load would require that Ohio build or purchase 23.4 TWhs per year. AEP Ohio has projected that most of the data center demand will arise before 2030. Nuclear energy might be a good candidate to supply this power, were it not for the 7-10 years it takes to build the plants.

Further, it appears that PJM has ample new generation on the way to meet this new demand. PJM reports that 811 new projects, with 220 GW of capacity, have applied to connect to the regional grid, 53 GW ready to be built. In January 2026, PJM reported it has 10 GW in signed interconnect agreements for Ohio. Berkeley Labs found 16.8 GW of new generation interconnection requests for Ohio in June 2026. If we conservatively assume a 20% capacity production vector for this power (e.g. 100% of the capacity is solar), **this capacity already in the queue for Ohio alone would meet between 75-125% of Ohio's projected 2036 load.**

This is not to say Ohio should not invest in nuclear power for the long term. Ohio has long been a leader in power system design and manufacturing and is positioned to be a leader in the nuclear industry supply chain. Investment now in nuclear power would position Ohio to respond to the predicament the nation may well face in 30 years as natural gas supplies dwindle, climate change worsens and the grid is saturated with intermittent renewable power.

THE BOTTOM LINE

Nuclear power is expensive, and cost overruns are likely to continue. Putting the costs into the rate base would drive up electricity costs. This would encourage large end users to leave the grid, leaving the remaining captured ratepayers to pick up a larger share of the higher costs.

Further, subsidized generation would chill participation by commercial retail electricity service providers in Ohio's energy markets, driving up prices. There are better ways to support the nuclear power industry in Ohio without undermining the competitive energy retail markets that have saved $37 billion ratepayers since 2011

Ohio has been down this path before. Vertically integrated regulation led to cost overruns that culminated in $0.25/kWh electricity rates in Ohio in the 1980s. Rather than repeat this mistake, Ohio should find ways to encourage the adoption of an advanced nuclear industry in the state without putting ratepayers at risk. Ohio can continue to encourage new nuclear energy through manufacturing and supply chain support. It can also welcome independent power producers to build nuclear power plants that compete with other generation – as it already does now.

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