# Updated Electric Industry Deregulation: Ohio Case Study

November 2016



# This study follows a history of PSC publications on electric market structures and state energy policy:

- Analysis of Electric Deregulation Policies in Four States (2014)
- Electric Reliability in Michigan: The Challenge Ahead (2014)
- Michigan's Current Energy Plan: Research-based, Comprehensive, Flexible, Certain, Accountable, Reliable, and Affordable (2012)
- Market Structures and the 21st Century Energy Plan (2007)
- Electricity Restructuring in Michigan: The Effects to Date of Public Act 141 and Potential Future Challenges (2006)

These publications are available for download at **www.pscinc.com** 

#### **Executive Summary**

In the late 1990s, several states, including Michigan, began deregulating their electric utility markets in the hopes that competition in the generation and sale of electricity would drive down consumer prices. The enthusiasm for deregulation had waned in Michigan, but discussions around electric market choice are regaining momentum. Legislation currently under discussion in the Michigan House and Senate explores modification to the state's retail open-access policies.

In 2013, Public Sector Consultants Inc. (PSC) was hired to review the experiences of other states that deregulated their markets and identify lessons or issues that might be relevant to the current discussion of Michigan's energy policy. The report is available at http://bit.ly/ ElectricIndustryDeregulationCaseStudies. During its research, PSC conducted case studies of Texas, Illinois, Montana, and New Jersey—four states representing a range of geographies, political leadership, deregulatory approaches, and policy frameworks. PSC found that while there were some limited benefits of electric market competition in these states, broad success for deregulation has either not materialized or has come with other regulatory and financial costs. Specifically, the case studies of these five states found that:

- Ensuring electric capacity and reliability can be a substantial challenge
- Rates are sometimes more volatile under deregulation, and there is little evidence that deregulation reduces rates
- Deregulation can reduce a state's control of its energy policy because of the stronger roles regional transmission organizations and the federal government play
- New forms of market/government intervention to address market failures have often been necessary
- There are significant challenges with pricing default electric service—the service provided to residential customers who do not opt for, or cannot obtain, competitive electric service
- Flexible rate stabilization mechanisms (such as Texas'" price to beat") during the transition period worked better than traditional price caps for attracting alternative providers

In 2016, PSC again researched developments related to electric deregulation starting with these four states and looking at other jurisdictions where electric deregulation had been implemented. After reviewing the original four states' experiences, PSC determined that there were not enough new developments to warrant updating the case studies; however, one state in particular stood out based on ongoing discussions related to its electric market—Ohio. Based on initial findings, PSC decided to prepare a case study examining Ohio's experience with deregulation and the current status of their electric market, and the findings in Ohio reinforce those from the earlier analysis of the five states. Like other states, Ohio faces several challenges related to its electric supply that must be addressed in order to ensure long-term, affordable, and reliable energy for the state. For example:

- Electricity prices in Ohio have risen since the expiration of rate freezes and market stabilization mechanisms, impacting affordability for Ohio customers.
- Restructuring has not spurred significant new investment in the state by independent power producers, resulting in a net reduction in capacity in the state. This is further exacerbated by economic pressure and the need to update existing plants to improve efficiency and environmental performance, which may lead to even further erosion of the in-state generating capacity.
- Deregulation creates challenges to the efforts of the State's regulatory agency to act to protect electric reliability and affordability.

This report summarizes PSC's findings regarding Ohio's experience.

# Introduction

#### Impetus and Purpose of the Research

The drive toward electricity deregulation waned considerably after the price spikes, rolling blackouts, and utility bankruptcies that accompanied California's energy crisis in 2000–2001 and as other states experienced similar challenges.<sup>ii</sup> By the early to mid-2000s, some states had repealed electric choice laws or otherwise pulled back such efforts, while others stayed the course, hoping to capture the potential benefits of deregulation. A third group of states had little choice on changing direction, since power plants had been spun off from utilities to other companies as required under the deregulation legislation.

While there was considerable media coverage of state deregulation up through the mid-2000s, there has been little research on recent experiences. With the current cycle of low prices for natural gas (a major fuel source for electricity generation) and wholesale power, there has been renewed interest in some states, including Michigan, to reexamine deregulation in an effort to increase competition and reduce prices for more customers. Michigan lawmakers have sought input on whether the state should revisit its market structure, including the 10 percent cap on electric customer choice instituted in 2008. As a backdrop, Gov. Rick Snyder has called for energy decisions that provide for reliability, affordability, and environmental protection. He wants the state's energy policies to be adaptable—a "no regrets" approach.

Many of the deregulated states now have at least a decade of experience to review. In 2013, Consumers Energy and DTE Energy asked PSC to review the experiences of several deregulated states to identify lessons or issues that might help inform the policy debate in Michigan. PSC chose Texas, Illinois, Montana, and New Jersey. In 2016, Consumers Energy and DTE Energy asked PSC to analyze current developments in these four states, but after examination, PSC determined that there had been limited activity since the last report, and the case studies, therefore, did not warrant an update. While researching, it became apparent that any additional discussion of state experiences with deregulation would not be complete without also reviewing current activities in the state of Ohio. Though not included in PSC's original discussion of state experiences with deregulation, ongoing activities in Ohio have brought to light several challenges related to the state's electricity market that make it an important state to consider when reviewing deregulation policies. Ohio's inclusion is also important as the state shares many similarities with Michigan, including climate, energy consumption characteristics, and fuel mix. This report summarizes the findings from the review of Ohio's experience with deregulation.

# **Study Approach**

PSC modeled its study of Ohio on the method used for previous case studies, and conducted literature reviews of deregulation in these states, reviewing primary and secondary documents on issues such as implementation approach, prices, electric provider switching rates, reliability, regulatory changes, and other related deregulation issues. The information from the review was evaluated in the context of national and other state trends in prices, generation mix, capacity, reliability, and rates of residential and commercial switching. PSC also reviewed energy policies or regulatory changes made subsequently to deregulation to fine-tune or correct deficiencies in deregulation policies.

It is difficult, if not impossible, to document what would have happened in states that implemented electric choice had they maintained their regulated utility system (and vice versa). However, looking at issues and lessons among deregulated states over time can help policymakers identify factors that affect the success, or lack thereof, of electric choice programs and shape future energy policy decisions in Michigan and elsewhere. These case studies highlight some of these issues and contribute to the ongoing dialogue about the merits of electric market deregulation.

<sup>&</sup>lt;sup>ii</sup> California partially deregulated its electricity industry in 1996, and subsequent market manipulations by energy companies such as Enron created artificial shortages that caused substantial wholesale electricity price increases. The high wholesale prices squeezed the revenue margins for utilities because of customer price caps imposed as part of deregulation, bankrupting or nearly bankrupting the state's two largest utilities.

Deregulation has not delivered the savings for Ohio customers that advocates promised; in fact, customers have seen some of the most significant price increases of all deregulated states. The state now faces challenges related to how or if to maintain in-state generation and whether it wants to or can intervene to ensure the future of its energy supplies.

#### Summary

Over the past two decades, Ohio has slowly transitioned its electricity market from traditional, vertically integrated utilities that provided the complete range of electric services to a mix of deregulated power producers and electric distribution utilities. Ohio is important in the context of electricity market deregulation for several reasons. The state restructured its electricity markets in 2001 but only recently gave up state control over its electricity prices. Ohio's move toward restructuring involved a market development period and subsequent rate stabilization plans that regulated electricity prices, greatly slowed competitive market development, and raised issues about consumer protections. Ohio's approach to deregulation has shown the state's reluctance in giving up control over its electric supplies to market forces. Only in recent years has it become more evident that deregulation has not delivered the savings for Ohio customers promised by advocates; in fact, customers have seen some of the most significant price increases of all deregulated states. The state now faces challenges related to how or if to maintain in-state generation and whether it wants to intervene to ensure the future of its energy supplies.

### **History and Profile**

- Deregulated in 2001
- Regional transmission organization (RTO)/independent system operator (ISO): PJM
- Organized wholesale energy and capacity markets under FERC jurisdiction
- 2015 retail electricity sales: 149,213,224 MWhs (4th most in the nation)
- Average electricity price (cents/kWh in 2015): 9.98 (21st highest in the nation)

Ohio is one of 24 states that have—to some extent—undergone electricity market restructuring since the late 1990s. Ohio's move toward deregulation began with the passage of the amended Ohio Electric Restructuring Act (Senate Bill 3) in 1999. The act, for the first time, allowed retail customers to choose their electricity suppliers. Prior to 2001, Ohio's electric utilities were vertically integrated firms controlling transmission, distribution, and generation. At the time restructuring was introduced, Ohio had eight investor-owned utilities (IOUs) and 26 nonprofit electric utilities. The IOUs provided 91 percent of all electric services.<sup>1</sup> In order for customers to be able to choose their electric supplier, utilities had to unbundle their services and charges, or separate out the costs associated with each component of the supply of electric-ity. This allowed incumbent utilities to retain their exclusive rights to transmission and distribution, and enabled nonutility power producers to supply power to customers.

To ensure a successful transition to a deregulated market, Ohio implemented a market development period, which included a 5 percent rate reduction and a fiveyear rate freeze. Additionally, the legislation also empowered the Public Utilities Commission of Ohio (PUCO) to determine the amount and recovery period for utilities' stranded costs. This allowed utilities to recoup their investment in assets approved under traditional regulation.

In the early years of Ohio's experiment with deregulation, most customer switching occurred in service territories with high costs, especially northern Ohio. For much of the state, however, there was little reason for customers of moderate-to-low-priced utilities to switch providers. This was due mainly to the rate reduction and freeze,

#### TIMELINE

**1999**—Amended Ohio Electric Restructuring Act (SB 3) enables restructuring

**1999**—The PUCO issues initial rules for transition to a competitive retail market, including provisions for recovery of stranded costs, corporate unbundling, consumer education, and employee protections

**200 I**—Electric deregulation goes into effect

**2004**—FirstEnergy conducted wholesale electric competitive bidding processes to develop electricity costs

**2006**— After the market development period concludes, the PUCO implements utility rate stabilization plans to minimize market uncertainty and provide a gradual transition to market-based rates

**2007**—Gov.Ted Strickland proposes the Energy, Jobs, and Progress Plan, which included four major goals: (1) stable and predictable electricity rates, (2) development of advanced and renewable energy, (3) an increase of energy efficiency, and (4) the modernization of electric infrastructure

**2008**—Ohio passes Amended Substitute Senate Bill (SB 221) which incorporates the governor's Energy, Jobs, and Progress Plan, enacts a renewable energy portfolio and energy-efficiency mandates

**2012**—The PUCO initiates an investigation into the market

**2014**—The PUCO investigation concludes that effective competition would be unattainable in a partially deregulated electricity market and standardizes EDU invoices to create greater transparency for consumers



which made it difficult for alternative energy suppliers to offer competitive prices. Instead of promoting the successful development of a competitive market, the market development period actually hindered its growth by making incumbent utility rates artificially low.<sup>2</sup>

As the five-year rate freeze expired, the state intervened again, instituting rate stabilization plans to protect customers from sticker shock in the time that followed. These plans were designed to gradually transition customers to market-based rates.

In 2008, Ohio passed the Amended Substitute Senate Bill (SB 221), which changed the regulatory framework that applied to electric distribution utilities (EDUs) by requiring a hybrid approach to setting default service rates for consumers who do not actively choose an alternative retail supplier. It required EDUs to develop a standard service offer (SSO), or default service, to maintain vital electric service to consumers. For SSO options, EDUs can choose an electric security plan (ESP), which is based on a cost-of-service proposal from the EDU and allows cost recovery for generating and/or purchasing power as well as a PUCO-approved profit (similar to the previously regulated utility structure), or they could choose

a market-rate offer (MRO), which completely opens the default service to market conditions. Under SB 221, the PUCO additionally required the separation of utility-owned generation from EDUs.

### Customer Switching Eventually Catches On

The number of customers switching to alternative electricity providers has grown to a much larger share of the state's electric supply in recent years. In early 2009, eight years after electric choice went into effect, less than 2 percent of sales were provided by competitive retail energy suppliers (CRES). In 2016, nearly 86 percent of commercial, 92 percent of industrial, and 52 percent of residential sales were made by CRES providers, as shown in Exhibit 1.<sup>3</sup>



Exhibit I. Electric Choice Sales-Switch Rates and Electric Choice Customer-Switch Rates, June 2015

SOURCE: The Public Utilities Commission of Ohio. March 9, 2016. Electric customer switch rates and aggregation activity. Accessed November 10, 2016 http://www.puco.ohio.gov/puco/index.cfm/industry-information/statistical-reports/electric-customer-choice-switch-rates-and-aggregation-activity/#sthash.iUlsuTxa.wKLsR8YQ.dpbs

#### Issues

Ohio faces several challenges related to its electric supply that must be addressed in order to ensure long-term, affordable, and reliable energy for the state. For example:

- Electricity prices in Ohio have risen since the expiration of rate freezes and market stabilization mechanisms, impacting affordability for Ohio customers.
- Restructuring has not spurred significant new investment in the state by independent power producers, resulting in a net reduction in capacity in the state. This is further exacerbated by economic pressure and the need to update existing plants to improve efficiency and environmental performance, which may lead to even further erosion of the in-state generating capacity.
- Deregulation creates challenges to the efforts of the State's regulatory agency to act to protect electric reliability and affordability.

#### Affordability

Historically, states with the highest electricity costs restructured their markets first, while states with low electricity costs remained regulated. When states began to implement restructuring legislation in 1999, electricity prices were, on average, 2.3 cents higher in states that adopted restructuring than rates in the regulated states—8.1 cents and 5.8 cents per kWh, respectively.<sup>4</sup>

This was not the case in Ohio, where electricity prices were near the national average when restructuring was introduced in 2001. Immediately following restructuring, Ohio's prices, in all customer classes, fell below the national average. However, the decline in price was not attributable to market forces. Rather, it was due to state intervention and the mandatory rate reduction required by Ohio Senate Bill 3. Average prices remained below the national average during the market development period, which ended in 2005/2006, and the rate stabilization period, which ran through 2008/2009. Without additional government interventions since the end of rate stabilization, electricity prices in Ohio have risen above the national average for residential and industrial customers and have trended upwards for commercial customers. According to analysis conducted by the Ohio Consumers' Counsel, out of all deregulated states, Ohio has experienced some of the largest increases in retail electricity prices from 2008 to 2015.5 Since deregulation was introduced in 2001, electricity prices in Ohio have increased nearly 50 percent (2.74 cents per kilowatt-hour). This exceeds national rate increases over the same time period by 1.35 cent per kilowatt-hour. This trend brings into question whether the state's decision to embrace deregulation has benefited consumers by producing lower energy prices.

#### Exhibit 2. Residential Electric Price Change from 2008 through 2015 in Restructured States (cents/kWh)



SOURCE: Analysis performed by PSC using data from U.S. Energy Information Administration. October 12, 2016. Average Price by State by Provider (EIA-861). Accessed November 16, 2016. http://www.eia.gov/electricity/data/state/



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#### Investment in New Generation

Another issue facing Ohio, as well as the nation as a whole, is the ever-changing generation mix for electricity and the impact this has on reliability. Faced with new, more stringent emissions standards, changing economic conditions, and aging plants, many states have experienced significant power plant retirements. Since 2002, Ohio has seen several natural gas and coal plant retirements, representing more than 8,000 MWs of its electric capacity. The U.S. Energy Information Administration projects that over the next 25 years, 152 gigawatts of fossil fuel generation could be retired nationally.<sup>6</sup>

Given these expected retirements, the importance of ensuring adequate capacity to meet Ohio's electricity needs is even more

pressing. New investments have been made to shore up electricity supplies in parts of Ohio where retirements have made a particularly large impact. This includes the portion of northern Ohio served by American Transmission Systems Inc. (ATSI), where 2,285 MWs—or 21 percent—of the region's capacity have been retired.<sup>7</sup> But so far, most solutions to Ohio's capacity retirements have emerged in the form of investments in new transmission lines rather than replacement capacity. As a member of the Pennsylvania New Jersey Maryland Interconnection (PJM) RTO, Ohio can rely on electric generation outside of its state boundaries to meet its needs provided that the electricity can be successfully transported into the state. In recent years, excess capacity across PJM has made it easy for states like Ohio to import necessary power from other



SOURCES: U.S. Energy Information Administration. October 12, 2016. Existing Nameplate and Net Summer Capacity by Energy Source, Producer Type, and State (EIA-860). Accessed Novem ber 16, 2016. http://www.eia.gov/electricity/data.cfm#gencapacity; U.S. Energy Information Administration. October 12, 2016. Net Generation by State by Type of Producer by Energy Source (EIA-906, EIA-920, and EIA-923). Accessed November 16, 2016. http://www.eia.gov/electricity/data/state/

states instead of building new generation. This solution will serve Ohio as long as reserves are available across PJM, but it may present a future challenge if regional excess dissipates. According to a report from PJM, retiring just 16,000 MWs of capacity in the region could cause demand to exceed available resources by 2025.<sup>ii</sup> The report goes on to caution that timing is critical, as "PJM's Mercury and AirToxics Standard experiences suggest that build rates may not ensure that necessary transmission will be in service before retirements occur."<sup>8</sup>

ii 16,000 MWs represents approximately 10 percent of PJM's total electric generating capacity in 2016.

So far, power plant retirements have not placed reliability at risk for Ohioans, as they have been able to rely on the PJM market over this same period. However, with additional potential retirements on the horizon, there will come a point when Ohio will need to replace its lost capacity. Since 2000, the state has added approximately 10,000 MWs of new capacity, with the majority fueled by natural gas. As shown in Exhibit 5, most of the additional capacity came into operation between 2000 and 2003. The rate of capacity additions has slowed, however, with just over 2,000 MWs added since 2003.



SOURCE: The Public Utilities Commission of Ohio. March 9, 2016. Electric customer switch rates and aggregation activity. Accessed November 10, 2016 http://www.puco.ohio.gov/puco/index.cfm/industry-information/statisticalreports/electric-customer-choice-switch-rates-and-aggregation-activity/#sthash.iUlsuTxa.wKLsR8YQ.dpbs

While capacity additions have slowed since 2003, retirements have not. Over this period, Ohio's generating capacity has decreased by more than 5,000 MWs resulting in a net decrease in generating capacity of more than 2,000 MWs (see Exhibit 6). Ohio consistently consumes more electricity than it generates; the state has been a net importer of energy for 14 out of the last 15 years. In 2015, for example, Ohioans used 27 million megawatt hours more electricity than the state generated—the third highest gap in the nation.



SOURCE: U.S. Energy Information Administration. October 6, 2016. EIA Form 860. Accessed November 17, 2016. http://www.eia.gov/electricity/data/eia860

There have been several new power plants proposed in recent years, but only four of the proposed new power plants, representing about a third of new planned additions, are under construction; others have been postponed, delayed, or are still in permitting phases. In some cases, such as the proposed plant in Lima, Ohio, independent power producers have struggled to find adequate financial backing or waited for appropriate market conditions. The Lima plant has been postponed for more than 15 years since its original backers filed for bankruptcy.<sup>9</sup> This new capacity, if completed, would help to ensure adequate resources are available in the state, but it is still unclear whether these projects will come to fruition, given the short-term price signals offered through regional markets and the current reliance on regional transmission solutions.

Some deregulated states—like New Jersey and Maryland—have responded to the inability of RTO capacity

markets and regional pricing systems to support new in-state generation by attempting to reassert some state control over their capacity decisions. Both states have passed legislation to support new in-state generation, which would provide companies with the long-term certainty required for such large investments.<sup>10</sup> These efforts have created tension and litigation between state and federal entities. In both cases, successful court challenges have held back these states' attempts to reassert control over their capacity decisions. On April 19, 2016, the United States Supreme Court ruled that Maryland's proposal conflicted with the federal government's authority over wholesale energy markets and was therefore invalid because it adjusted the interstate wholesale rate for electricity.11



SOURCE: Analysis performed by PSC using data from 22, 23, 24, 25, 26, 27, 28, 29, 30, 31.

#### Market Conditions Place Existing Generation at Risk

Ohio could be in store for additional plant retirements as power companies try to adapt to lower revenues from wholesale energy markets and frustration with the performance of regional capacity markets. Since deregulating its electricity market, Ohio utilities such as FirstEnergy, Duke Energy, and American Electric Power (AEP) have unbundled their generation, transmission, and distribution services. This means that should a customer choose a different electric supplier, they will still receive transmission and distribution service from their utility; however, the utility will not bill them for the generation portion of their electricity bill. Instead, the customer will contract with a competitive retail energy supplier for their generation and pay each company separately for the portion of services they provide. In Ohio, only the distribution rates are set by the public utilities commission. The remaining transmission and generation prices are determined in the regional market. These regional wholesale energy prices are largely dependent on fuel prices and energy demand. Historically low natural gas prices have contributed to very low wholesale power prices, which has caused issues for some power plant operators. Because natural gas prices play an important role in setting regional power prices, when these prices fall, compensation through electricity markets falls as well. This may sound like an advantage for consumers, but when prices are depressed for too long, utility power producers may be forced to retire baseload generation as their revenues decline. This is especially

true when compensation companies receive from capacity markets also doesn't cover the full cost of retaining baseload power plants. These factors have the potential to further erode generating capacity, hamper reliability, and lead to increased rates as new resources must be acquired to replace older, retiring units.

Declining revenues from wholesale energy markets as well as structural concerns with regional capacity markets have prompted several of Ohio's largest utilities to seek more stability from state regulators. As a solution, the utilities have proposed power purchase agreements (PPAs) as a part of their electric security plans. The utilities claim that these PPAs act as a hedging mechanism for their customers who would be protected from long-term price increase and market volatility. Critics, however, see them as mechanism to restore revenue certainty to the utilities in direct opposition to the state's decision to deregulate electric generation.<sup>12, 13</sup>

Ohio's public utility commissioners unanimously approved AEP's and FirstEnergy's PPAs in late March 2016, regaining some control over the future of in-state generation to enhance reliability and provide protections "against rate volatility and price fluctuations by promoting stability for all ratepayers."<sup>14</sup> However, following the PUCO's approval, the Federal Energy Regulatory Commission (FERC) stepped in to invalidate the PPAs. While FERC did not dispute the role that state regulators have in protecting retail customers, it did determine that the PPAs "present the 'potential for the inappropriate transfer of benefits from [captive] customers to the shareholders of the franchised public utility,' and thus could undermine the goal of the commission's affiliate restrictions.''<sup>15</sup>

While FERC's decision was widely praised by the PPAs' critics, the proposal's supporters quickly pointed out that Ohio still lacks a plan to address the potential retirement of the plants covered under the PPAs.<sup>16</sup> This could lead to a further tightening of capacity resources in the state, deepen Ohio's dependence on out-of-state power generators, and threaten the continued provision of reliable service.

The utilities have continued their attempts to find a solution to the problems they face. Regarding the challenges facing utilities in Ohio, AEP CEO Nick Akins said, "all of these state-related issues are occurring out of frustration with organized markets such as PJM that have an inherent inability to allow states to make decisions regarding their own resources.

# Ohio needs to decide expeditiously, does it want to control its own development of resources within the state, or leave it to PJM [and] the federal government who have conflicting multistate interest."<sup>17</sup>

These challenges have contributed to recent efforts from AEP and FirstEnergy to convince Ohio policymakers that the state needs to reconsider its electric market structure. AEP has even gone as far as selling four power plants that made up a combined 5,200 MWs of generating capacity in the state, a move similar to that of Duke Energy, which sold its Ohio power plants in 2014.<sup>18, 19, 20</sup> Mr. Akins explained that, "We [AEP] want to invest in new generation resources, but we have to have a mechanism to do that. Otherwise, we're just a wires utility in the state (Ohio)."<sup>19</sup>

While AEP has begun its extrication from the generation business in Ohio, FirstEnergy has gone back to the PUCO with a new request for funding. This time, FirstEnergy's proposal reserves any reference to power purchases, which FERC rejected earlier, and requested funds to ensure the company's financial health so it can make needed investments in the future. Ohio is not the only state currently wrestling with the issue of what to do with existing generation when revenue from energy and capacity markets fall short. PUCO Chairman Asim Haque, even noted in the commission's order approving new compensation for FirstEnergy that the issue facing Ohio is not unique, and there are several deregulated states considering mechanisms to preserve generating capacity within their borders, including New York and Illinois.<sup>21</sup> Haque acknowledged that the commission's move was "unconventional" in a deregulated state, but added that their need was necessary to ensure FirstEnergy is "healthy enough" to make new future investments.

# Conclusion

Ohio's restructuring of its electricity market has not produced the desired results in terms of affordability and new generation. Even utilities that previously lobbied for restructuring in Ohio are recognizing that the expected benefits never materialized, and the ability to maintain resources within the state is compromised by fluctuations in market prices driven by short-term phenomena like fuel prices. The utilities are asking for the State to reassert some regulatory control, and it appears that Ohio's utility regulators are reluctant to leave the state's electric supplies to the influences of regional markets. Instead, regulators are opting to reassert control over sustaining resources and ensuring viable utilities, though their early efforts in this area have been thwarted by FERC and others that question the PUCO's authority to intervene in the deregulated market. It may seem that reliance on the regional marketplace and transmission-based solutions for electric supplies could provide positive short-term results if low energy prices persist; however, Ohio must decide if this is the appropriate type of planning for its energy future, especially as technological and market disruptions challenge the energy industry.

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