

# State Actions in Organized Markets

## *Continued Use of 'Around Market' Solutions to 'Fix' Markets and the Natural Gas Conundrum*

Case No. 1:16-cv-08164-VEC

IN THE  
United States District Court  
for the Southern District of New York

COALITION FOR COMPETITIVE ELECTRICITY;  
DYNEGY, INC.; EASTERN GENERATION, LLC;  
ELECTRIC POWER SUPPLY ASSOCIATION;  
NRG ENERGY INC.; ROSETON GENERATING LLC; and  
SELKIRK COGEN PARTNERS, L.P.,  
*Plaintiffs,*

v.

AUDREY ZIBEMAN, in her official capacity as  
Chair of the New York Public Service Commission;  
and PATRICIA L. ACAMPORA, GREGG C. SAYRE,  
and DIANE X. BURMAN, in their official capacities as  
Commissioners of the New York Public Service Commission,  
*Defendants.*

**FirstEnergy could sell up to 13 plants as it joins AEP in Ohio re-regulation fight**

**Illinois payments to Exelon spur complaint at FERC**

**NYPSC Rejects Challenge to Clean Energy Standard, Nuke Subsidy**

December 26, 2016

California Merchant Gas Generator, Lamenting Market Forces, Files for Bankruptcy

**Gov. Bruce Rauner Signs Future Energy Jobs Bill at Quad Cities Ceremony**

*Lawsuit Seeks to Halt New York Subsidies for Upstate Nuclear Plants*

**Bill to open energy markets to Millstone a priority for Formica, other lawmakers**

**February 2017**

***Raymond L. Gifford***  
***Matthew S. Larson***

## **Executive Summary**

***‘Around market’ solutions continue to develop in the states, along with legal and regulatory challenges.*** New York and Illinois have moved quickly to implement ‘around market’ solutions to preserve nuclear power, while Ohio appears on the cusp of legislation implementing the ultimate ‘around market’ solution in the form of vertical reintegration. Challenges are pending to the New York and Illinois policies before the Federal Energy Regulatory Commission. A federal lawsuit has been brought in New York as well.

***States are coalescing around an ‘around market’ template to preserve nuclear baseload power plants.*** New York and Illinois have established the Zero Emission Credit (ZEC) system through administrative and legislative means, respectively, as a mechanism to retain nuclear power plants at risk of closure. Connecticut, Pennsylvania, New Jersey and others are looking to this template for an ‘around market’ solution of their own, and these states are the next frontier of the ZEC strain of ‘around market’ solutions.

***Natural gas-fired power plants are also now at risk of closure and bankruptcy in organized markets, especially in California and generation owned by merchant plants.*** This nascent and largely unpublicized development suggests gas-fired generation are facing the same pressures as the much-beleaguered coal and nuclear facilities, perhaps with more draconian implications for consumers and, especially, organized markets. When baseload gas plants cannot cover their fixed costs, all traditional baseload generation sources are at risk.

***Natural gas-fired power plant closures should not be viewed in isolation from sales of natural-gas-fired assets in organized electricity markets.*** Bankruptcies in California and power plant sales elsewhere in the country should not be viewed in isolation. While the product of dynamics in different organized markets, both developments reflect a prevailing view that market design problems for gas-fired generators are beginning to manifest. Expect increasing anxiety from the states and generators about regulatory and reliability risks. Further, it raises questions about the ability to run a renewables-heavy system within existing market designs, absent an ‘around market’ solution that backdoors capacity payments to generators through a non-market or para-market means.

***A diverse portfolio standard may emerge as the next ‘around market’ solution.*** The diverse portfolio standard (DPS) is an amalgamation of the principles underlying certain ‘around market’ solutions and even renewable portfolio standards across the country. Through a DPS, a state could mandate that minimum amounts of certain fuel types be kept online, based on the availability and costs of fuels in the state. Further, a DPS could serve as a technology-forcing initiative to the extent states want to see the development of carbon capture and sequestration technologies. Mind you, a DPS has very little to do with blackboard energy markets superintended by FERC, but a federalism-driven policy of energy experimentation may be the inadvertent path ‘markets’ and states are on.

## I. Introduction

In September 2016, we profiled the continued exit of base load power by coal-fired and nuclear generation from wholesale power markets across the country and catalogued the ‘around market’ solutions states crafted to address this perceived problem. As a descriptive matter, we offered that, by their legislative and regulatory steps, states were souring on organized wholesale markets.<sup>1</sup>

That trend continues unabated, with the coming year promising more such legislative and regulatory action from additional states. The outcome of litigation, with New York at the leading edge, will determine whether earlier state steps are lawful under the Federal Power Act. In addition, the reaction of a re-constituted Federal Energy Regulatory Commission will decide whether these markets tip toward dissolution or are reformed consistent with the witches’ brew of political economy elements active in the various regions and the states.

Events most certainly have not slowed down since our first White Paper.

We saw the unprecedented introduction, passage and enactment of the nearly 500-page Future Energy Jobs Bill (FEJB) in Illinois during the six-day veto session. The FEJB preserved the Clinton and Quad Cities nuclear power plants from closure using a Zero Emission Credit (ZEC) system modeled on the Clean Energy Standard implemented by the New York Public Service Commission. The statute has already been challenged at the FERC.

Meanwhile, the CES plows ahead in New York despite a pending challenge in federal district court. Talk of re-regulation continues in Ohio amid sales of competitive generation plants there. In Pennsylvania, FirstEnergy has announced it sold four power plants as the utility seeks to exit the competitive generation business in the Keystone State as well. Further, controversy continues to

foment over the carbon intensity of replacement capacity for exiting nuclear as sides are drawn to replace the significant clean-generation hole created by the Indian Point nuclear power plant in New York.

‘Around market’ solutions in the wholesale power market are alive and well without regard to geographic boundaries and not withstanding legal hurdles. Retaining base load power is a major and growing concern in the organized markets. Events over the last six months have proven that hypothesis. Indeed, one commentator appropriately described ‘around market’ solutions as “an existential threat to markets.” Yet states continue to seek solutions in the name of preserving baseload capacity and maintaining system reliability.<sup>2</sup>

As we look toward what is coming next, it is important to look to California, where the first signs of trouble for natural gas-fired power plants are showing, as units proving uneconomic in the California Independent System Operator (Cal-ISO) market are either being mothballed or filing for bankruptcy protection.

This paper will survey the intervening events and offer observations on where ‘around market’ solutions may be next, as states like Connecticut, Pennsylvania and others determine how to grapple with the loss of baseload power.

In keeping with the exploratory nature of our initial effort, we pose three questions for consideration by policymakers and stakeholders:

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<sup>2</sup> See, e.g., EPA News Release, *EPSCA Strongly Urges FERC to Protect Consumers and Markets from Distorting Out of Market Subsidies* (Jan. 9, 2017), available at [https://www.epsc.org/forms/uploadFiles/3F8CC00000F5\\_filename.ZECS\\_PRESS\\_RELEASE\\_-\\_Final\\_.pdf](https://www.epsc.org/forms/uploadFiles/3F8CC00000F5_filename.ZECS_PRESS_RELEASE_-_Final_.pdf) (“FERC and the ISOs/RTOs have been on notice for a long time in the existing dockets in which today’s filings are being made that this is an existential threat to markets that cries out for effective action through a minimum offer price rule on existing units for the capacity auctions used in New York and PJM,” [EPSCA President John E. Shelk] stressed. “That threat has only grown exponentially with recent state actions. EPSCA implores FERC to act before the next capacity auctions given that ZECs are scheduled to begin prior to the delivery years for these auctions.”)

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<sup>1</sup> By “organized markets,” we mean not only the FERC regulated RTOs/ISOs, but also ERCOT in Texas, which is facing a similar dilemma.

- Will markets be allowed to function without policy interventions into the price system, *i.e.*, are we capable of having a market structure that avoids the constant temptation to tweak, modify and therefore undermine the price formation?
- If not, where do states go from here?
- And, whither a FERC soon to be dominated by Trump Administration appointees?

Conveniently, our answer to the first self-framed question is: No, because political economy pressures will always overwhelm and swamp the ability for price formation to occur organically, without policy interference. We then ask what is to be synthesized from the current market thesis and state ‘around market’ antithesis.<sup>3</sup> Given this answer, the paper explores potential ideas for next-generation state efforts.

Above all, we await the first state to take the ultimate step of implementing re-regulation and walking away from organized markets entirely in the name of preserving baseload power.

## II. The Latest in ‘Around Market’ Solutions

The development of ‘around market’ solutions continues and shows no signs of abating. This development continues to follow the three modes we identified in our initial paper, with some variation. This section will briefly recap the three modes we identified in the initial White Paper on these market design issues, then provide an update on ‘around market’ developments in various states.

The three modes identified in the initial White

Paper were as follows: (1) the maintenance fee (or backdoor capacity payment); (2) the prescriptive replacement capacity approach; and (3) vertical reintegration, or re-regulation.

The maintenance fee may be administrative (*e.g.*, New York, Ohio) or legislative (*e.g.*, Illinois), but both serve the ultimate end of establishing a payment structure to compensate baseload nuclear and coal power plants for the value they provide to the system and keep these facilities from exiting the system as they prove uneconomic in the organized electricity markets. These maintenance fee approaches have been rebuked at both the U.S. Supreme Court and the FERC. Nevertheless, as discussed in more detail in our state-by-state ‘around market’ inventory below, states have evolved in their development of ‘around market’ solutions, seeking to disconnect the valuation of any subsidy from the organized electricity markets to step around the U.S. Supreme Court decision in *Hughes*.<sup>4</sup>

The prescriptive replacement capacity mode has seen less recent action than the maintenance fee approach. Under the prescriptive replacement capacity mode, there is both a legislative (*e.g.*, Massachusetts) and administrative (*e.g.*, California) approach. It features the development of a specific portfolio of resources, often with carbon intensity as a key metric in the development of the portfolio, to fill the capacity hole created by the departure of baseload power. While it remains to be seen whether the 2017 state legislative sessions feature these types of bills, the inventory below shows that certain elements of this approach have merged with the maintenance fee model as states work to build coalitions around their respective ‘around market’ solutions.

We have yet to see any state adopt the ultimate ‘around market’ solution by adopting the reintegration model and thereby eliminating organized electricity markets altogether. This approach is still very much in play and we

<sup>3</sup> We recognize that framing the question in terms of market ‘purity’ raises problems because all markets suffer from certain policy-led distortions, starting with taxes. The concept we are reaching for is to distinguish a more blackboard economic case of price formation based on endogenous factors within supply and demand within a market; as distinguished from a market where prices are set or affected by exogenous policies. And, yes, we are pretentiously reaching for a dialectical reference in an electricity policy discussion in the noted sentence above.

<sup>4</sup> *Hughes v. Talen Energy Marketing, LLC*, 136 S. Ct. 993 (2016).

continue to believe that it remains all about “who goes first” to adopt this solution. Vertical-reintegration is not without its own warts and difficulties, but it undoubtedly solves the baseload power exit problem every ‘around market’ solution is designed to address.

*a. New York*

The NYPSC continues to move ahead with the implementation of the CES and the ZEC system designed to reward the FitzPatrick, Ginna and Nine Mile nuclear power plants and keep them online. ZECs are purchased pursuant to 12-year contracts, with the price adjusted every two years. A summary of the structure of the system, is excerpted below:

The CES requires the owners of eligible nuclear power plants to enter into long-term contracts with the New York State Energy Research and Development Authority (NYSERDA) under which the owners sell the zero-emissions attributes associated with the electricity produced by the plants. Beginning in April 2017, the state’s load-serving entities (LSE) are required to periodically purchase from NYSEDA an amount of ZECs per year of the total amount of ZECs purchased by NYSEDA equal to the proportion of load served by the LSE in relation to statewide load served by all LSEs. ZECs themselves are not tradable except between NYSEDA and LSEs during an annual balancing process. But LSEs and self-supply customers can seek permission from the PSC to meet ZEC obligations by entering into combined ZEC plus energy and/or capacity contracts directly with nuclear facilities. LSEs will be required to report their compliance with the ZEC program annually.<sup>5</sup>

<sup>5</sup> Jessica Bayles, *NY Creates New Emissions Credit for Nuclear Plants*, Energy Business Law Blog (Sept. 20, 2016), available at

The ZEC requirements thus act as a mandatory capacity payment to ZEC-producing entity. It is a currency created for and tradable to only at-risk nuclear units. While a market patina overlays the ZEC mandate, it acts as a capacity payment mandate from load serving entities to ZEC-creating nuclear units.<sup>6</sup>

The CES paradigm is important because the ZEC system structure is being incorporated as the preeminent design by states for ‘around market’ solutions. It is not without detractors, however, which is unsurprising given the controversy that surrounds these ‘around market’ solutions in the first place. Indeed, the Electric Power Supply Association (EPSA) classifies this ‘around market’ solution design as “corrosive” and recently stated that “[t]he profound adverse economic effects of ZECs and similar out of market payments on the viability and integrity of wholesale markets that millions of consumers depend on is not in dispute. That much is clear from the comments of independent market monitors, the ISOs/RTOs themselves, and those who are market participants every day.”<sup>7</sup>

The ZEC system in New York is also subject to more than just verbal jousting. The CES is under challenge in federal court based on the theory that it impinges on FERC’s jurisdiction and violates the Commerce Clause of the Constitution.<sup>8</sup> It also is subject to a separate

<http://www.energybusinesslaw.com/2016/09/articles/environmental/ny-creates-new-emissions-credit-for-nuclear-plants/>.

<sup>6</sup> We hasten to add that we do not mean to condemn the ZEC model, just describe its ultimate effect. As the closing section of this paper describes, the range of acceptable political economy narratives in a given state varies according to particular circumstances, and dressing up ZECs as a “market” solution has some salience.

<sup>7</sup> Kennedy Maize, *Non-Utility Power Generators Push FERC on State Nuclear Subsidies*, POWER Magazine (Jan. 11, 2017), available at <http://www.powermag.com/non-utility-power-generators-push-ferc-on-state-nuclear-subsidies/>.

<sup>8</sup> *Coalition for Competitive Electricity, et al. v. Zibelman*, Case No. 1:16-cv-08164-VEC (S.D.N.Y.); Kennedy Maize, *U.S. Electric Markets in Transition*, POWER Magazine (Jan. 1, 2017), available at <http://www.powermag.com/u-s-electric-markets-transition/?pagenum=1> (“In late October, a group of non-utility generators including Dynegy, NRG

challenge at FERC.<sup>9</sup> This is not unexpected, but the outcome of both actions is important because of the interplay with Illinois. The Illinois FEJB and its ZEC program is also being challenged at the FERC. From a legal standpoint, the two states' programs will likely rise or fall together.

The CES model is not the only news out of New York. On January 9, 2017, Governor Cuomo announced that the Indian Point nuclear power plant, with a capacity of 2 GW, will be closed by 2021. Indian Point's sheer size renders this decision a significant development, and New York appears to be following the prescriptive replacement capacity approach to fill the generation hole created by the early retirement of Indian Point. This capacity hole is significant because Indian Point serves approximately one-quarter of the metropolitan New York area.<sup>10</sup> The Indian Point replacement capacity plan has echoes of H. 4568 passed in Massachusetts and signed into law last year<sup>11</sup> and the Diablo Canyon nuclear power plant replacement approach in California.<sup>12</sup>

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Energy, and the Electric Power Supply Association challenged the Cuomo plan. Citing *Hughes*, the group filed suit in Manhattan's federal district court, charging that the New York subsidies will prop up the nuclear plants at the expense of the federally regulated wholesale markets. Lawyer Jonathan Schiller, representing the generators, said, "This is illegal. It interferes with the Federal Energy Regulatory Commission's jurisdiction in regulating wholesale electric rates, and also because the measure unlawfully interferes with interstate commerce."

<sup>9</sup> Kennedy Maize, *Non-Utility Power Generators Push FERC on State Nuclear Subsidies*, POWER Magazine (Jan. 11, 2017), available at <http://www.powermag.com/non-utility-power-generators-push-ferc-on-state-nuclear-subsidies/>.

<sup>10</sup> Jeff St. John, *New York: State's Plan to Bridge from Nuclear to Offshore Wind*, Greentech Media (Jan. 13, 2017), available at <https://www.greentechmedia.com/articles/read/new-yorks-plan-to-bridge-from-nuclear-power-to-offshore-wind>.

<sup>11</sup> Press Release, *Governor Baker Signs Comprehensive Energy Diversity Legislation* (Aug. 8, 2016), available at <http://www.mass.gov/governor/press-office/press-releases/fy2017/governor-baker-signs-comprehensive-energy-diversity-law.html>.

<sup>12</sup> PG&E, *PG&E, Labor and Environmental Groups File Diablo Canyon Joint Proposal with the CPUC* (Aug. 11, 2016), available at <https://www.pge.com/en/about/newsroom/newsdetails/index>.

It is similar to the Massachusetts and California situations in that the fundamental question involves how to replace the early retirement of a large, zero-emission baseload resource without increasing carbon dioxide emissions.<sup>13</sup> Similar to Massachusetts' H. 4568, New York may rely on the import of Canadian hydropower through the Champlain Hudson Power Express transmission project. This project would bring the hydropower from Quebec to New York City. It is also similar to the Diablo Canyon replacement proposal with demand side resources and renewable energy as components of the replacement capacity. New York's end-game, though, appears to be offshore wind. Governor Cuomo has announced a goal of developing 2.4 GW of offshore wind by 2030, so the hydropower would bridge the state until it achieves that goal.<sup>14</sup>

New York thus represents two 'around market' modes. It is using both the maintenance fee and prescriptive replacement capacity models to address the baseload power exit issue statewide.

#### *b. Illinois*

The end of the year in Illinois was filled with high drama from an energy perspective, as the FEJB was introduced and passed during the six-day veto session of the Illinois General Assembly. Governor Bruce Rauner signed the FEJB into law on December 7, 2016.<sup>15</sup> The multi-faceted bill covered many aspects of the utility space, and even

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<sup>13</sup> See Robert Walton, *New England CO2 emissions spike after Vermont Yankee nuclear closure*, Utility Dive (Feb. 6, 2017), available at <http://www.utilitydive.com/news/new-england-co2-emissions-spike-after-vermont-yankee-nuclear-closure/435520/>.

<sup>14</sup> Jeff St. John, *New York: State's Plan to Bridge from Nuclear to Offshore Wind*, Greentech Media (Jan. 13, 2017), available at

<https://www.greentechmedia.com/articles/read/new-yorks-plan-to-bridge-from-nuclear-power-to-offshore-wind>.

<sup>15</sup> *Rauner Signs Future Energy Jobs bill*, Quad-City Times (Dec. 7, 2016), available at [http://qctimes.com/news/local/rauner-signs-future-energy-jobs-bill/article\\_2d62c5fc-bc9f-11e6-8a7d-9bc0371ec76c.html](http://qctimes.com/news/local/rauner-signs-future-energy-jobs-bill/article_2d62c5fc-bc9f-11e6-8a7d-9bc0371ec76c.html).

underwent and survived a name change from the Next Generation Energy Plan following the election of President Donald Trump in November 2016.<sup>16</sup>

The FEJB featured, among other things, “\$750 million in low income programs, including \$360 million for low income solar programs and job training for foster children and ex-offenders, and a \$180 million a year enhancement to the state’s renewable portfolio standard (RPS) program that will grow to \$220 million a year.”<sup>17</sup> But stripping away these programs and expenditures, at the core of the FEJB lies the maintenance fee, with the imminent closure of Exelon’s Quad Cities and Clinton nuclear power plants driving the extraordinary timeline from introduction to passage for the bill.

The FEJB goes into effect on June 1, 2017, and implements a ZEC system for 10 years with payments totaling \$235 million per year to the nuclear power plants.<sup>18</sup> The bill was the product of a significant amount of give-and-take as the bill went through numerous iterations over a short period of time. A casualty of the negotiations was the controversial demand charge and the Fixed Resource Adequacy Plan (FRAP).<sup>19</sup> The FRAP would have provided capacity payments to downstate coal-fired power plants, and indeed represented a coal-centric maintenance fee in its own right. The demand charge was opposed by

distributed generation interests and others. Meanwhile, the FRAP faced staunch opposition from the environmental community and could not even garner the support of the Illinois Coal Association, which opposed the subsidy because the coal-fired power plants covered by the FRAP burn Powder River Basin coal from Wyoming. Amidst all the controversy surrounding these provisions, however, the ZEC system survived and the Clinton and Quad Cities nuclear power plants were saved by the Illinois General Assembly. In the afterglow of the FEJB passage, however, a UBS analyst was quick to warn that the legislation does not solve structural market issues in the organized electricity markets.<sup>20</sup>

FEJB and ‘around market’ solution adversaries are not going away quietly. A challenge to the ZEC system has been brought at the FERC in conjunction with the New York CES challenge.<sup>21</sup> PJM is also ramping up a stakeholder process to analyze and consider the impacts of ZEC-based systems, while the PJM Independent Market Monitor, in a perfect encapsulation of public choice economics, has expressed concern to FERC that “[c]ompetition in the markets could be replaced by competition to receive subsidies.”<sup>22</sup> In any event, we will soon know if FERC is willing to reject a ZEC system tied to the social cost of

<sup>16</sup> See Next Generation Energy Plan Home Page, available at <http://www.exeloncorp.com/newsroom/next-generation-energy-plan>.

<sup>17</sup> Peter Maloney, *Why Exelon's mammoth Illinois energy bill could set a precedent for other states*, Utility Dive (Dec. 12, 2016), available at <http://www.utilitydive.com/news/why-exelons-mammoth-illinois-energy-bill-could-set-a-precedent-for-other-s/432089/>.

<sup>18</sup> Peter Maloney, *Why Exelon's mammoth Illinois energy bill could set a precedent for other states*, Utility Dive (Dec. 12, 2016), available at <http://www.utilitydive.com/news/why-exelons-mammoth-illinois-energy-bill-could-set-a-precedent-for-other-s/432089/>.

<sup>19</sup> Rich Miller, *Rauner administration: Commitment to move bill to cap rates*, Capitol Fax (Nov. 22, 2016), available at [http://capitolfax.com/2016/11/22/update-on-the-exeloncomed-bill/?utm\\_source=dlvr.it&utm\\_medium=twitter](http://capitolfax.com/2016/11/22/update-on-the-exeloncomed-bill/?utm_source=dlvr.it&utm_medium=twitter).

<sup>20</sup> Peter Maloney, *Why Exelon's mammoth Illinois energy bill could set a precedent for other states*, Utility Dive (Dec. 12, 2016), available at <http://www.utilitydive.com/news/why-exelons-mammoth-illinois-energy-bill-could-set-a-precedent-for-other-s/432089/> (“From an investor’s point of view, passage of the Future Energy Jobs Bill is a ‘broad positive’ for Exelon, says UBS analyst Julien Dumoulin-Smith, though the subsidy does not solve ‘structural market issues.’ In a Dec. 2 note, Dumoulin-Smith cautioned investors about ‘expectations for broader nuclear fleet issues in future periods, creating a need to support other plants in the state as wind imports and merchant transmission can continue to meaningfully depress’ locational marginal prices.”)

<sup>21</sup> Kennedy Maize, *Non-Utility Power Generators Push FERC on State Nuclear Subsidies*, POWER Magazine (Jan. 11, 2017), available at <http://www.powermag.com/non-utility-power-generators-push-ferc-on-state-nuclear-subsidies/>.

<sup>22</sup> *Illinois ZEC payments worry PJM, alarm monitor*, Power Markets Today (Feb. 1, 2017), available at <http://www.powermarketstoday.com/public/Illinois-ZEC-payments-worry-PJM-alarm-monitor.cfm>.

carbon and rebuke the states for structuring and implementing programs in this way.

c. *Ohio*

Ohio remains at the leading edge of the ‘around market’ solution and baseload power exit crisis. There have been three relevant developments in Ohio: (1) the continued push for re-regulation by utilities; (2) continued action by the Public Utilities Commission of Ohio (PUCO) to address these issues; and (3) power plant sales driven by a desire of utilities serving the state and region to exit competitive generation entirely.

In a third quarter earnings call, FirstEnergy President Charles Jones emphasized the utility’s continued interest in pursuing re-regulation of the electricity market in Ohio.<sup>23</sup> Jones noted that operational challenges and lost revenue from the company’s Davis-Besse and Perry nuclear power plants have created a sense of urgency in proposing legislation to reintegrate the utility and its subsidiary, FirstEnergy Nuclear Operating Company (FENOC).

Jones’ comments have been accompanied by action on the legislative front in Ohio. American Electric Power (AEP) has been leading the effort by engaging policymakers in related discussions, and now FirstEnergy and Dayton Power & Light (DPL) seem poised to join the charge.<sup>24</sup> In light of an uncertain future for the continued operation of the Davis-Besse, Perry and other plants, expedited legislation aimed at re-regulation is a top priority for Ohio utilities.<sup>25</sup> This legislative effort is not

without its opponents. An independent power producer has threatened to cancel a gas-fired generation project known as the Trumbull Energy Center if re-regulation legislation is successful.<sup>26</sup> Legislators will grapple with these kinds of threats, while re-regulation proponents simultaneously raise the potential closures and sales of baseload power plants, if and when a re-regulation bill is introduced in the Ohio Legislature.

To that point, there are many moving parts to the debate in Ohio, including a transactional component to the re-regulation effort. Both AEP and First Energy have been selling competitive generating assets to reduce exposure to organized electricity markets. Between serious legislative conversations and efforts and competitive generation sell-offs worth billions of dollars, it is increasingly apparent that the re-regulation push in Ohio is more than just talk or threats to obtain approval of ‘around market’ solutions. It is a desirable regulatory outcome for utilities concerned about the future of their generation assets given the issues in organized electricity markets.

At the PUCO, despite FERC’s decision to block PUCO-approved affiliate power purchase

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[resources/publications/2016-lame-duck-summary-and-2017-budget-preview](#)

<sup>26</sup> Virginia Shank, *Energy regulations play role in plant development*, Tribune Chronicle (Jan. 15, 2017), available at <http://www.tribtoday.com/news/local-news/2017/01/energy-regulations-play-role-in-plant-development/> (“Development of the proposed Trumbull Energy Center ‘will stop immediately’ if Ohio returns to a system of regulating electric rates, the president of Clean Energy Future said. Bill Siderewicz described ‘ongoing efforts’ by major utility companies to re-regulate the state’s energy policies as a ‘major stumbling block’ for his company’s plans to build a second \$900 million, gas-powered electric plant next to the Lordstown Energy Center now under construction on Henn Parkway. ‘If we feel legislators are responding positively to (FirstEnergy’s) ‘re-reg’ push we will stop the Trumbull Energy Center’s development effort immediately ... and (FirstEnergy) will have effectively killed a \$14 billion benefit to the Valley,’ Siderewicz said. Joined by Lordstown Mayor Arno Hill at the Lordstown Administration Building, Siderewicz on Wednesday officially announced Clean Energy’s plan to develop the TEC as a twin plant to the Lordstown Energy Center.”)

<sup>23</sup> FirstEnergy Q3 Earnings Call Transcript, available at <http://seekingalpha.com/article/4019708-firstenergy-fe-q3-2016-results-earnings-call-transcript?part=single>

<sup>24</sup> Robert Walton, *AEP: Restructuring Ohio markets will require IOU collaboration*, Utility Dive (Sept. 13, 2016), available at <http://www.utilitydive.com/news/aep-restructuring-ohio-markets-will-require-iou-collaboration/426152/>

<sup>25</sup> Christopher N. Slagle et. al., *Insights & Resources: 2016 lame duck summary and 2017 budget preview*, Bricker & Eckler (Dec. 28, 2016), available at <http://www.bricker.com/insights->

agreements, FirstEnergy, AEP and DPL have re-filed modified ‘around market’ plans designed to avoid the prior result at FERC. For example, a part of FirstEnergy’s Electric Security Plan (ESP), approved in an October 2016 Order by PUCO, includes a new Distribution Modernization Rider (Rider DMR) that authorized the utility to recover \$132.5 million per year for three years through charges on customers’ bills.<sup>27</sup> These revenues must be allocated to grid modernization improvements, but critics of Rider DMR allege that the Order does not specify how the recovered costs must be used to modernize the grid, and as such could indirectly subsidize the company’s coal and nuclear generation. Said another way, the Rider DMR is an ‘around market’ solution.

#### *d. Connecticut*

‘Around market’ solutions are under discussion in Connecticut as well. Connecticut’s only nuclear power plant, Millstone Power Station, is a 2020 MW facility owned by Dominion. It produces enough electricity to power 2 million homes, and approximately half of the electricity produced by Millstone is consumed in Connecticut. Dominion notes that Millstone supports 3,900 jobs and provides approximately \$1.5 billion in economic benefits to Connecticut.<sup>28</sup> Accordingly, preserving its operation is a key political issue in Connecticut.

In the state’s 2016 legislative session, lawmakers put forth a bill aimed at preserving and strengthening nuclear power. S.B. 344 would have initiated a solicitation process whereby the Department of Energy and Environmental Protection (DEEP) commissioner could issue solicitations for certain power generating facilities, including nuclear, to sell power or capacity to electric distribution companies. Passed in the Senate, the bill was ultimately tabled in the House

<sup>27</sup> Public Utilities Commission of Ohio, Case No. 14-1297-EL-SSO, Fifth Entry on Rehearing (Oct. 12, 2016), available at <http://dis.puc.state.oh.us/TiffToPDF/A1001001A16J12B41136G00094.pdf>

<sup>28</sup> Millstone Power Station Home Page, available at <https://www.dom.com/millstone>.

before the session ended in May.<sup>29</sup>

However, this may be the beginning, as opposed to the end, of possible ‘around market’ solutions designed to preserve baseload nuclear power in Connecticut. The state’s Office of Legislative Research published a report outlining the “2017 Major Issues,” noting that the legislature may again consider issues related to bolstering the success of nuclear plants in energy markets during the 2017 session.<sup>30</sup> The report specifically noted that “[n]uclear plant closures around the country have prompted states to consider ways to help struggling nuclear plants to compete in energy markets.”<sup>31</sup> Connecticut is a state to watch in 2017 from an ‘around market’ solution standpoint. To that point, the introduction of S.B. 106, a bill expected to be similar to S.B. 344, is expected soon.<sup>32</sup>

#### *e. Observations and the New York/Illinois ‘Around Market’ Template*

States are beginning to coalesce around the maintenance fee – or backdoor capacity payment – identified in our initial paper. States are also showing some willingness to adopt similar

<sup>29</sup> Raised S.B. No. 344, 2016 Gen. Assem., Reg. Sess., (Conn. 2016), available at [https://www.cga.ct.gov/asp/cgbillstatus/cgbillstatus.asp?selBillType=Bill&which\\_year=2016&bill\\_num=344](https://www.cga.ct.gov/asp/cgbillstatus/cgbillstatus.asp?selBillType=Bill&which_year=2016&bill_num=344)

<sup>30</sup> Conn. Gen. Assem. Office of Legislative Research, 2017 Major Issues, 2016-R-0296, 2016 Gen. Assem., at 7 (2016), available at

[https://www.cga.ct.gov/olr/Documents/year/MI/2017MI-20161209\\_Major%20Issues%20for%202017.pdf](https://www.cga.ct.gov/olr/Documents/year/MI/2017MI-20161209_Major%20Issues%20for%202017.pdf)

<sup>31</sup> Conn. Gen. Assem. Office of Legislative Research, 2017 Major Issues, 2016-R-0296, 2016 Gen. Assem., at 7 (2016), available at

[https://www.cga.ct.gov/olr/Documents/year/MI/2017MI-20161209\\_Major%20Issues%20for%202017.pdf](https://www.cga.ct.gov/olr/Documents/year/MI/2017MI-20161209_Major%20Issues%20for%202017.pdf)

<sup>32</sup> Jeffrey Tomich, *Industry sees ‘snowball effect’ in N.Y., Ill. policy wins*, EnergyWire (Feb. 9, 2017) (“The Connecticut General Assembly Energy and Technology Committee on Tuesday held a hearing on S.B. 106. While specific language hasn’t been filed, it’s expected to be similar to a bill last year that would have allowed Dominion’s Millstone Nuclear Power Station to bypass the wholesale market and sell energy and capacity directly to utilities if state officials determine that doing so is in the interest of ratepayers and the environment.”)

maintenance fee schemes, with New York and Illinois putting in place similar ZEC system and pricing approaches. Part of this congruency between New York and Illinois, however, is very likely driven by the fact that Exelon is the owner of the nuclear power plants at risk in both states. These systems are both under challenge and will likely rise or fall together.

Other states are looking to Illinois and New York as a model in addressing their own baseload power exit issues. New Jersey is a good example, as utilities in the state view the success of nuclear subsidies in New York and Illinois as a model for creating a similar ZEC system in the state. Ralph Izzo, the chairman and CEO of PSEG is a staunch advocate that a ZEC program is necessary to sustain nuclear power in New Jersey. Despite a push from utilities, regulators on the New Jersey Board of Public Utilities have not developed a specific proposal for a ZEC program. The New Jersey Division of Rate Counsel is opposed to such measures because nuclear power in the state remains profitable.<sup>33</sup> While regulatory opposition may make implementation of a ZEC system challenging, Izzo has stated that he will continue to engage policymakers in discussions related to ZECs to forestall future operational challenges.<sup>34</sup> PSEG appears primed to get out in front of the challenges faced in other states by proactively implementing a ZEC system before nuclear power plants are under duress from market dynamics. Further, New Jersey is a state to watch because Exelon has nuclear interests there as the owner of the 625 MW Oyster Creek Generating Station.<sup>35</sup>

<sup>33</sup> David Giambusso, *New Jersey energy leaders look to New York's nuclear subsidy*, Politico (Nov. 30, 2016), available at <http://www.politico.com/states/new-jersey/story/2016/11/new-jersey-energy-leaders-look-to-new-yorks-nuclear-subsidy-107709>

<sup>34</sup> Tom Johnson, *New Jersey unlikely to follow New York's subsidies of nuclear industry*, NJ Spotlight (Aug. 5, 2016), available at <http://www.njspotlight.com/stories/16/08/04/new-jersey-unlikely-to-follow-new-york-s-subsidies-of-nuclear-industry/>

<sup>35</sup> On a recent Exelon conference call, an executive noted that discussions regarding state-level nuclear preservation options are underway in Ohio, Pennsylvania, and New Jersey. Jeffrey Tomich, *Industry sees 'snowball effect' in N.Y., Ill. policy wins*, EnergyWire (Feb. 9, 2017) ("Joe

Similarly, Pennsylvania is a state to watch given market dynamics and the fact that the three operators of the state's five nuclear power plants (FirstEnergy, Exelon, and Talen Energy) are hardened veterans of the 'around market' solution wars. FirstEnergy has indicated that its 1800 MW Beaver Valley nuclear plant may be put up for sale, particularly following the sale of its gas-fired assets in January 2017.<sup>36</sup> It is unclear whether the New York administrative option or the Illinois legislation option would be used as a template in Pennsylvania, but it remains a state to watch in 2017 as the next frontier of 'around market' solutions.<sup>37</sup>

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Dominguez, executive vice president of governmental and regulatory affairs and public policy at Chicago-based Exelon Corp., said discussions about preserving nuclear plants are already underway in a few other states — Ohio, Pennsylvania and New Jersey. 'All the states are states that understand the value of the nuclear plants and want to keep these plants operational,' Dominguez said yesterday during Exelon's quarterly conference call. 'The level of discussion is at different stages.' In Pennsylvania, where the company owns three nuclear plants, discussions are still in the early stages, Dominguez said. He said it's premature to speculate what kind of legislation might be proposed.")

<sup>36</sup> Anya Litvak, *After New York props up nuclear power generation sector, is Pennsylvania next?*, Pittsburgh Post-Gazette (Aug. 30, 2016), available at <http://powersource.post-gazette.com/powersource/policy-powersource/2016/08/30/After-New-York-props-up-nuclear-power-generation-sector-is-Pennsylvania-next/stories/201608300009> ("Jennifer Young, a spokesperson for FirstEnergy, said the company is weighing its options for Pennsylvania and its Beaver Valley plant there. During a company earnings call last month, FirstEnergy's CEO Chuck Jones said the company is considering selling off its nonregulated generation plants, such as Beaver Valley, because the market dynamics don't reward their reliability. He also said FirstEnergy is delaying by two years replacing the steam generator at one of the Beaver Valley reactors.")

<sup>37</sup> Anya Litvak, *After New York props up nuclear power generation sector, is Pennsylvania next?*, Pittsburgh Post-Gazette (Aug. 30, 2016), available at <http://powersource.post-gazette.com/powersource/policy-powersource/2016/08/30/After-New-York-props-up-nuclear-power-generation-sector-is-Pennsylvania-next/stories/201608300009> ("With victory in New York, it's only natural for nuclear operators to use the momentum to go after subsidies in other states, wrote Kit Konolige, a senior utility industry analyst at Bloomberg Intelligence, in a recent note. 'Companies probably will end up seeking billions of dollars from Pennsylvania, New Jersey, Ohio and

In addition to providing a template to other states looking to preserve baseload power, the FEJB in Illinois and CES in New York are instructive in looking at the evolution of ‘around market’ solutions. While the FEJB is a legislative action and the CES is an administrative action, both stand for a similar approach. Both actions include the maintenance fee, or ZEC system, as part and parcel of a broader, utility-industry wide action to address other issues as well. These broader approaches appear to have been undertaken in both states because of the flexibility they provide in building coalitions in support of the action. The CES included a significant increase in the state RPS designed to build environmental community support around the CES. Similarly, the FEJB implements an expansion of and up to \$220 million in increased funding for the state RPS, \$750 million in funding for low-income customer programs, job training programs related to renewable energy deployment and maintenance, and other components.<sup>38</sup> With this, we are seeing the maintenance fee model evolve to a model where a state implements a significant energy policy bill that addresses key issues important to various stakeholders, from the environmental community to unions to low-income advocates. But the maintenance fee remains at the core of the model, however, and without it the administrative or legislative proposal fails to go forward.

Accordingly, while the approaches in Illinois and New York touch many facets of energy policy and power generation, delivery, and consumption, these efforts remain at their core an ‘around market’ solution directed at fixing problems

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Connecticut,’ he wrote. ‘Closing nuclear plants could lead to higher carbon emissions and thousands of layoffs.

Subsidizing them would boost electric bills and hurt rival generators’ margins.’ He speculated that the three operators of Pennsylvania’s five nuclear plants — Akron-based FirstEnergy, Illinois-based Exelon, and Talen Energy, based in Allentown — ‘could unite in Pennsylvania aid push’ on the heels of the New York decision. It’s not yet clear what the ask will look like and if it will rely on regulations or laws to prop up struggling nuclear plants.”)

<sup>38</sup> FEJB Master Fact Sheet, *available at* [http://futureenergyjobsbill.com/Master\\_Fact\\_Sheet.pdf](http://futureenergyjobsbill.com/Master_Fact_Sheet.pdf).

caused by the realities and problems of organized electricity markets.<sup>39</sup>

### III. Looking at the Horizon in the Markets

A final key development in the ‘around market’ solution arena relates to the scope of “at-risk” fuel types. To date, all ‘around market’ solutions have been directed at nuclear and coal-fired power plants. But recent market developments suggest that may be changing.

The baseload exit problem in organized electricity markets has two discrete phases. The first development is the bankruptcy or closure, or threat of bankruptcy and closure, of power plants. A follow-on phase then ensues involving emergency state action to preserve the baseload capacity, with significant associated costs, political and otherwise. Indeed, the inventory in the prior section catalogues these actions and potential actions by state legislators or regulators. Moreover, in some instances, this second phase involves a conscious decision by state legislators and/or regulators to allow the power plants to close, and be replaced with other resources.<sup>40</sup>

The hallmark of this first phase outlined above is baseload power plant owners find themselves unable to compete in organized markets where the clearing price is pushed down by federal tax credits for renewable energy, among other things. These tax preferences give intermittent renewable generation a leg up in the marketplace. We have seen nuclear and coal-fired generation encounter these issues and exit or be saved, based on the state preference. A startling recent development, however, is that gas-fired generation is beginning to show symptoms of entering this first phase. Put more simply, gas-fired power plants are

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<sup>39</sup> As we noted in the first White Paper, we are not writing necessarily to condemn the outcomes markets are yielding – there is certainly a view embraced by certain generators and environmental advocates that the market outcomes pushing out higher-fixed cost baseload plants are mete, right and just. However, as these papers document, that view is not shared by the utilities or political classes of many states.

<sup>40</sup> Legislation in Massachusetts and New York’s response to the Indian Point closure serve as relevant examples.

succumbing to the same pressures as coal and nuclear in organized markets. This development may signal that gas is joining coal and nuclear in the first phase of the baseload exit problem.

California and the Cal-ISO provide the evidence. In early December 2016, Dynegy filed a 90-day notice with Cal-ISO that it would retire 1,500 MW from two units at its gas-fired Moss Landing Power Plant. Meanwhile, Calpine – the country’s largest generator of electricity from gas and geothermal sources – has placed its 672 MW Sutter Energy Center in “cold lay-up,” which is industry parlance for temporarily shutting down the unit. Calpine has released all employees from the gas-fired power plant, however, and it is unclear if the facility will ever run again given the market issues in Cal-ISO that forced the facility into “cold lay-up” in the first place. And finally, La Paloma Generating (La Paloma), which owns a 1,022 MW gas-fired power plant in California, filed for bankruptcy on December 6, 2016. La Paloma explicitly referenced market design flaws in its bankruptcy filing. Cal-ISO “has failed to provide a market mechanism to compensate the facility and other similar facilities for the reliability service they provide,” the filing stated. Industry observers warn this is just the first of many bankruptcies involving gas-fired power plants in organized markets.<sup>41</sup>

If gas-fired generation is indeed entering the bankruptcy or threat of bankruptcy phase of this problem, the next question is when does the second phase begin? Said another way, the waiting game is on the see if: (1) an ‘around market’ solution is developed to preserve gas-fired generation in organized electricity markets or (2)

<sup>41</sup> Ethan Howland, *Citing rough market conditions, California generator La Paloma files for bankruptcy*, Inside FERC (Dec. 12, 2016) (“The bankruptcy filing is a sign of a ‘broken’ market in California, according to Gary Ackerman, executive director for the Western Power Trading Forum, a group that aims to encourage competition in western electricity markets. ‘The generating asset owners in California are doubtful that anything like a market exists.’ Ackerman said. Other generators will likely face bankruptcy when their resource adequacy contracts expire, according to Ackerman. ‘There will be a lot more of these,’ he said.”)

whether the threat of gas exits triggers a re-regulation push in any state. Based on what we are seeing in Cal-ISO, it is not fanciful to conclude that an ‘around market’ subsidy scheme will be also be required for gas-fired facilities in organized markets.

The alternative, as with coal and nuclear generation, is bankruptcy for gas-fired power plants as seen in California or sales of gas plants by utilities to reduce exposure to the risks of turbulent organized electricity markets. In Ohio, AEP has offloaded three gas-fired power plants (totaling approximately 2,500 MW) to a private equity-backed joint venture.<sup>42</sup> The \$2.17 billion deal also includes a 2,665 MW coal-fired facility, with the three gas units totaling over 2,500 MW of capacity.<sup>43</sup> AEP was hardly subtle in disclosing its rationale for the sale. AEP chairman and CEO Nick Akins stated “AEP’s long-term strategy has been to become a fully regulated, premium energy company focused on investment in infrastructure and the energy innovations that our customers want and need. This transaction advances that strategy and reduces some of the business risks associated with operating competitive generating assets.”<sup>44</sup> A fair reading of this is that AEP wants re-regulation, and views any fossil-fired competitive generation, whether coal or gas, as at-risk.<sup>45</sup> This viewpoint is certainly consistent with the market developments in California.

<sup>42</sup> Dan Gearino, *AEP signs agreement to sell four power plants*, The Columbus Dispatch (Sept. 14, 2016), available at <http://www.dispatch.com/content/stories/business/2016/09/13/Report-AEP-to-sell-4-power-plants.html>.

<sup>43</sup> Dan Gearino, *AEP signs agreement to sell four power plants*, The Columbus Dispatch (Sept. 14, 2016), available at <http://www.dispatch.com/content/stories/business/2016/09/13/Report-AEP-to-sell-4-power-plants.html>.

<sup>44</sup> Dan Gearino, *AEP signs agreement to sell four power plants*, The Columbus Dispatch (Sept. 14, 2016), available at <http://www.dispatch.com/content/stories/business/2016/09/13/Report-AEP-to-sell-4-power-plants.html>.

<sup>45</sup> Dan Gearino, *AEP signs agreement to sell four power plants*, The Columbus Dispatch (Sept. 14, 2016), available at <http://www.dispatch.com/content/stories/business/2016/09/13/Report-AEP-to-sell-4-power-plants.html>. (“[AEP is] just looking at the uncertainty in the electricity-generating part of the market and saying, ‘We can’t manage the uncertainty

AEP is not alone. FirstEnergy is seeking to do the same in Ohio and Pennsylvania and recently closed a sale of four gas-fired power plants in Pennsylvania.<sup>46</sup> The sale to a New York-based power developer involves units with approximately 750 MW of gas-fired capacity.<sup>47</sup>

The bankruptcies and cold-lay ups in California and power plant sales on the other side of the U.S. should not be viewed in isolation. While the product of dynamics in different organized markets, they reflect a prevailing view that market design problems are lurking for gas-fired generation and beginning to manifest themselves around the country. The possible and dramatic impacts of natural gas-powered plants entering the first phase of this continuing baseload exit problem cannot be overstated. It illustrates a creep of market design issues into the currently favored and low-cost baseload fuel, raising important issues of regulatory risk and grid reliability. Further, it raises questions about the ability to run a renewables-heavy system within existing market designs, absent an ‘around market’ solution to cover capacity costs.

#### IV. Questions and Where to Go From Here

While we can draw no firm policy conclusions given the scale of activity within organized

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any more,” said Ned Hill, an Ohio State University economist.”)

<sup>46</sup> Joe Napsha, *FirstEnergy finds buyer for Pennsylvania power plants*, Pittsburgh Tribune (Dec. 8, 2016), available at <http://triblive.com/local/allegheeny/11609785-74/firstenergy-plants-power>.

<sup>47</sup> Anya Litvak, *FirstEnergy sells off Pennsylvania gas plants*, Pittsburgh Post-Gazette (Jan. 19, 2017), available at <http://powersource.post-gazette.com/powersource/companies/2017/01/19/FirstEnergy-sells-off-Pennsylvania-gas-plants/stories/201701190198> (“The sale has been in the works for months and is part of FirstEnergy’s plan to get out of the unregulated competitive power generation business. Company leaders have said they are steering the company to rely on utility and transmission segments for revenue. As part of that shift, the fate of Beaver County plants Bruce Mansfield coal-powered facility and the Beaver Valley nuclear power plant is unclear. FirstEnergy is trying to sell the plants or, in the case of Beaver Valley, hoping that Pennsylvania will follow New York’s example and approve subsidies to prop it up.”)

markets, we can certainly raise policy questions.

First, it is important to understand what the organized electricity markets are and are not. Second, we consider possible actions by states building on the ‘around market’ solutions discussed above. And third, we ask a question we cannot answer: Will the FERC intervene and begin addressing this issue, or embrace the various state ‘experiments’ underway?

##### a. *The Fundamental Inquiry*

The pervasive market design issues and baseload power exits across the country compel a fundamental question. Specifically, we need to ask whether the organized markets will ever truly be allowed to function as a pure market. In other words, are policymakers and regulators capable of developing a market structure that does not succumb to the temptation to modify the price system? A look at federal and state energy and environmental policy, and the corresponding ripple effects of these policies through organized electricity markets, makes clear that the answer is: no.<sup>48</sup>

In a way, this simple answer provides mental relief because the most difficult challenge in analyzing and conversing about the inability of

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<sup>48</sup> Commissioner Norman Bay reached the same conclusion in a concurrence in one of his final FERC orders. He wrote that “[t]he premise of the [minimum offer price rule] appears to be based on an idealized vision of markets free from the influence of public policies. But such a world does not exist, and it is impossible to mitigate our way to its creation. The fact of the matter is that all energy resources receive federal subsidies, and some resources have received subsidies for decades.” Order on Rehearing, 158 FERC ¶ 61,138, Docket No. ER14-1639-005 (Feb. 3, 2017), available at <https://www.ferc.gov/CalendarFiles/20170203205000-ER14-1639-005.pdf>. A reading of this is Commissioner Bay channeling Ronald Coase and his rejection of blackboard economics. R.H. Coase, *The Firm, the Market, and the Law*, at 19 (“The policy under consideration is one which is implemented on the blackboard. All the information needed is assumed to be available and the teacher plays all the parts. He fixes prices, imposes taxes, and distributes subsidies (on the blackboard) to promote the general welfare. But there is no counterpart to the teacher within the real economic system.”)

organized electricity markets to retain baseload power is avoiding making the debate into something it is not.

The debate between traditionally regulated markets (i.e., vertically integrated states) and market-regulated markets (i.e., restructured states giving rise to organized electricity markets) is not regulation versus deregulation. It is not free markets versus a command system. And it is not partisan, Democrat versus Republican. It is a debate between two different regulatory schemes, each with its own imperfections and political economy defects.

One regulatory scheme, the vertically integrated model, is premised on the regulatory compact, where “the utility accepts an obligation to serve in return for the government’s promise to set rates that will compensate it fully for the costs it incurs to meet that obligation.”<sup>49</sup> This scheme certainly has imperfections, but it has avoided the problems preserving baseload coal and nuclear capacity that currently plague organized electricity markets.<sup>50</sup>

The restructured model, on the other hand, is in fact an alternative regulatory scheme using a simulacrum of market institutions around a core regulatory function embodied in the RTOs/ISOs. As we said in our initial look at this issue, the policy intuition of preferring market institutions, where feasible, is sound. But that intuition must recognize the susceptibility of those market mechanisms to “taxation by regulation” and other rent-seeking pressures where the price system is sacrificed to other goals.

<sup>49</sup> Regulatory Assistance Project, *Electricity Regulation in the U.S.: A Guide*, at § 2.4, p. 5 (Mar. 2011), available at <http://www.raponline.org/knowledge-center/electricity-regulation-in-the-us-a-guide/>.

<sup>50</sup> The vertically integrated model’s acute imperfections are located farther in the past when successive waves of regulatory failure from 1970s and 1980s nuclear failures to runaway PURPA contracts (an ersatz market failure in essence) created the political conditions for ‘market’ experimentation.

Policymakers support the notion of organized electricity markets but also want to preordain the outcomes, such as low electricity prices, reliability, and green energy. The organized electricity markets have thus become Frankenmarkets. As tax and price preferences for renewable resources, combined with more stringent air quality and environmental regulation, ripple through the market constructs and distort the price system to such a degree, they become markets in name only.

In sum, we should accept two premises: (1) policymakers will not develop and implement markets free of policies that distort the price system; and (2) organized electricity markets are not pure markets and therefore the debate should not be markets versus command and control regulation. Acceptance of these two premises, in our view, is integral to understanding and addressing the baseload power exit issue in the organized electricity markets. Finally, once the political economy reality of electric ‘markets’ - or any regulatory institutional arrangement is seen clearly - the relative imperfections can be weighed and judged.

#### *b. Next Steps in the States: the DPS*

The action of regulators and legislators in New York, Illinois, and Ohio, and rumblings and rumors of action in other states, make clear that states will take this matter into their own hands and continue to move forward, modifying and thinking creatively about ‘around market’ solutions to sidestep prior setbacks at the FERC and U.S. Supreme Court. Illinois and New York, absent an adverse result in federal litigation or at the FERC, have shown states both a legislative and administrative path to preserving nuclear power plants. On the other hand, Massachusetts and California have demonstrated both a legislative and administrative path to *replacing* nuclear power plants. But when market design issues force gas-fired power plants out of the market, consistent with what we see in California, these fuel-specific solutions may not be enough as states turn an eye to the resource mix as a whole to preserve fuel diversity as a hedge against both price spikes and

shortages.

A potential result is the amalgamation of the principles underlying the ZEC system, the failed FRAP, and even renewable portfolio standards across the country: the diverse portfolio standard (DPS). Through a DPS, states could legislate minimum amounts of certain fuel types to be kept online, based on the fuels and costs of fuels available to the state. This is not a ‘preserve fossil’ play only, though that is a potential effect of certain incarnations of the DPS. It could include desired levels of coal, gas, nuclear, wind, solar, hydropower, other renewable fuel types, and even storage. Further, a DPS could serve as a technology-forcing initiative to the extent states want to see the development of carbon capture and sequestration technologies. The possibilities and forms of a DPS are virtually limitless; however, any DPS would serve a common purpose of preserving generation resource diversity and not exposing customers to reliability risks associated with the overreliance on certain fuel types as market design flaws force out fuel types.

We recognize that a DPS constitutes the very type of policy preference causing price formation issues in the states, but these are happening in any event and, consistent with the fundamental inquiry above, are essentially guaranteed to continue. Given that conclusion, this is a path forward for states who desire to stay in organized electricity markets, or retrench to vertical reintegration. Building on this latter point, we operate under no illusions and understand that a DPS may be a step toward re-regulation. But we also see scenarios playing out – with Ohio most likely to go first – where states skip over the ‘around market’ solution approach, DPS or otherwise, and move straight to re-regulation. It is all about who goes first.

Turning back to a DPS, this approach is undoubtedly not for states wary of litigation and FERC challenges. The trend we see in the states, however, is that these potential legal hurdles are not deterring states from pursuing ‘around market’ solutions, and we see no reason why a DPS would

change that calculus. States can and will move forward on ‘around market’ solutions, and a DPS or similar policy may be what we see next.

### c. *The FERC Question*

The FERC question – raised in the first White Paper and still hanging in the balance now – has two components. First, FERC is down to two commissioners in the aftermath of Commissioner Norman Bay’s retirement announcement. The make-up of FERC and the policy predilections of the three new commissioners will impact whether FERC is willing to proactively address market design issues and associated baseload power exits generally.<sup>51</sup> Former FERC Commissioner Philip Moeller has suggested in recent comments that gas plants encountering potentially fatal economic pressures in organized electricity markets have an argument that they should be compensated for the reliability service they provide.<sup>52</sup> Moeller further noted that changes to market rules may be something FERC addresses in 2017 based on the La Paloma bankruptcy and gas plant exits generally.<sup>53</sup> Nevertheless, it is a waiting game to

<sup>51</sup> The FERC as currently composed recently rejected a three-year forward capacity auction proposed by MISO. The proposal, entitled the Competitive Retail Solution, sought to implement the three-year forward capacity auction as a complement to the already existing Planning Resource Auction in the competitive retail areas of MISO. *See* Order Rejecting Tariff Filing, 158 FERC ¶ 61,128, Docket No. ER17-284-000 (Feb. 2, 2017). The FERC expressed concern as to how this proposal would affect price formation in both the forward auction and the Planning Resource Auction, noting it could lead to “significant and unnecessary price volatility . . .” *See also* Amanda Durish Cook, *FERC Rejects MISO’s 3-Year Forward Auction Proposal*, RTO Insider (Feb. 2, 2017), available at <https://www.rtoinsider.com/ferc-miso-forward-capacity-auction-37993/>. The order was issued the day before Commissioner Bay left the FERC.

<sup>52</sup> John Siciliano, *Coal to the rescue*, Washington Examiner (Jan. 30, 2017), available at <http://www.washingtonexaminer.com/coal-to-the-rescue/article/2613181> (“Moeller thinks gas plants under financial strain have a strong argument for compensation from states since they provide a vital service. ‘If they are providing something to the grid that is essential for reliability, they should be compensated for it,’ Moeller says.”)

<sup>53</sup> John Siciliano, *Coal to the rescue*, Washington Examiner (Jan. 30, 2017), available at

see who President Trump appoints to FERC and the direction it takes under Chairwoman LaFleur.

Second, moving to the reactive side, one thing is certain. FERC now has challenges to both the New York and Illinois ‘around market’ solutions pending before it. This represents a monumental inflection point as to whether the structures implemented through the CES and FEJB, respectively, are permissible or not. If the ‘around market’ solutions and ZEC system survives, it sends a signal to states that the ZEC pricing structure and general system are palatable to FERC, which may result in increased interest in adopting this template in other states experiencing the baseload power exit phenomenon. Alternatively, if the ZEC system is struck down by FERC (or the federal court in New York), it sends New York and Illinois, as well as states interested in these two states’ ‘around market’ template, back to the drawing board. At that point, it is unclear what the next picture looks like. It could be yet another ‘around market’ embodiment, or it could be a move towards re-regulation.

This much is clear: the make-up of FERC is unknown at this time, but the commission has a major ‘around market’ decision to make. And at a more fundamental level, the newly formed FERC needs to decide whether the baseload power exit trend, which is confined to neither a single region of the country nor a particular organized electricity market, requires proactive action to address or alleviate these issues.

Of course, an alternative path for FERC would be to allow these state ‘around market’ experiments to be tried in the name of federalism and the lack of a clear, politically tenable solution at the federal level. To be sure, given the premise

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<http://www.washingtonexaminer.com/coal-to-the-rescue/article/2613181> (“Last year, the large La Paloma gas plant in California announced it was being forced out of business because of market forces created by the Golden State’s climate change and renewable energy mandates. Philip Moeller, a former FERC commissioner, says that will be a problem FERC addresses in 2017, and that there is talk about tweaking market rules so baseload plants such as La Paloma are no longer undervalued.”)

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of *regional* markets, this creates some real problems, with strong incentives developing for states to outrace one another with subsidies. And, of course, it makes one wonder whether the resulting market equilibrium is worth the candle.

## V. Conclusion

The coming months are crucial in the market design and baseload power exit debate for several reasons. First, the viability of the ZEC system to preserve nuclear power plants in organized electricity markets will be debated and decided at FERC and in the courts, thus determining whether other states may employ the template to accomplish the same ends through either administrative or legislative action.

Second, the re-regulation debate in Ohio will continue to evolve with possible legislation to reintegrate the Ohio market. This is a potential tipping point because when it comes to re-regulation, it is all about who goes first. If one state is willing to take on this issue and pass legislation to reintegrate, other states will undoubtedly take notice and consider whether they too should consider the ultimate ‘around market’ solution to preserve baseload power for customers.

Third, and perhaps most importantly, gas-fired power plants will continue to contend with the same market design issues that coal and nuclear plants have dealt with for some time. If the bankruptcies and cold lay-ups seen in the Cal-ISO and the sell-offs of gas-fired units seen in PJM surface in other states and organized electricity markets, then state legislators and regulators will be forced to confront the question of whether gas needs an ‘around market’ solution. At the same time, these officials must evaluate whether the effects on gas compel a departure from deregulation and a return to a vertically integrated structure to keep these units online and preserve grid reliability.

The DPS, meanwhile, might emerge as an advertised ‘middle way’ between reintegration and markets. While being, at core, a central resource

planning model, the DPS has the reliability-maintaining and price-hedging characteristics that state regulators and political actors seek.

Finally, the most uncertainty surrounds the question of whether a newly constituted FERC will confront these issues directly by looking at market design issues underlying the baseload power exit trend, or if FERC will continue to address it indirectly through consideration of challenges to ‘around market’ solutions designed to patch these problems. There is perhaps only one certainty in this debate, and that is as gas joins coal and nuclear in struggling to remain economic in the organized electric markets, states will continue to develop ever more novel ‘around market’ solutions. And as states consider re-regulation, the problems with retaining baseload power in the markets is neither ending nor plateauing; rather, it is only just beginning.

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