THE OHIO STATE UNIVERSITY
JOHN GLENN COLLEGE OF PUBLIC AFFAIRS

Testimony Before
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Representative Robert Cupp, Chair

House Bill 247

Proponent Testimony

Of

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The findings, conclusions, and recommendations expressed in this testimony are mine alone and do not represent the views of The Ohio State University, the John Glenn College of Public Affairs, or the Ohio Manufacturing Institute

Chairman Cupp, Vice Chairman Carfagna, Ranking Member Ashford, and members of the House Public Utilities Committee, my name is Edward (Ned) Hill. I am a Professor of Public Affairs and City and Regional Planning at The Ohio State University's John Glenn College of Public Affairs and a member of The Ohio State University's Ohio Manufacturing Institute. Today's testimony is mine alone and does not represent the views of The Ohio State University, the John Glenn College of Public Affairs, or the Ohio Manufacturing Institute.

I am an economist and have worked on economic development policies in general, and on issues that affect Ohio's manufacturing sector in particular, for nearly thirty years. Additionally, I have been actively engaged in research on Ohio's electricity markets over the past four years, both in testimony before the Public Utilities Commission of Ohio (PUCO) and the Ohio Legislature and in research supported by the Northeast Ohio Public Energy Council (NOPEC). I have also actively participated in research relating to Ohio's natural gas resources since 2011.

As an economist who works on economic development issues I view the four-year long attempt of Ohio's IOUs to re-monopolize the electric generation industry through regulation and legislation and re-balkanize an efficient and reliable regional generation market managed by PJM Interconnect to be against the best interests of the people of the state of Ohio and harmful to the state's economic development. The goal of re-monopolization is to raise prices above competitively determined levels, thereby allowing the IOUs to keep uncompetitive, high-cost, generating assets on their books and not realize financial losses. Re-balkanization of the generating markets is then a necessary outcome from pursuing a policy of purchasing over-priced Ohio-generated power first, or subsidizing the purchase of expensive Ohio power. Balkanization then triggers a secondary cost: reduced system reliability.

December 2017 marked the four-year anniversary of a determined campaign by the Investor Owned Utilities (IOUs) of Ohio for a bailout of their loss-making power plants. My involvement in issues dates back to August of 2014 when I contacted The Ohio Manufacturers' Association and volunteered to testify before the PUCO on their behalf after reading about FirstEnergy seeking subsidies for its failing electricity generating resources through mandatory

Power Purchase Agreements (PPA) in Cleveland's Plain Dealer.[1] As the struggle to maintain competitive electricity generating markets continued so has my volunteer activity.

First the IOUs used their Electric Security Plans (ESPs) as vehicles to claw uncompetitive, non-bypassable power purchase agreements (PPAs) out of the PUCO. The ESPs were accompanied by a slew of non-bypassable riders that funneled above-market electricity payments to the state's IOUs, turning the ESPs into Egregious Subsidy Proposals. Next in line was a synthetic form of a PPA that rivaled the now infamous Synthetic Collateralized Debt Obligations [CDOs] as marvels of irresponsible financial engineering. Unsatisfied by the reception at the Public Utilities Commission of Ohio and at the Federal Energy Regulatory Commission (FERC) the IOUs shifted their attention to the legislature. FirstEnergy sought approval for synthetic Zero-emission nuclear credits, or ZECs, tied to non-bypassable power purchase agreements to subsidize its loss-making nuclear plants. Currently the IOUs that own a piece of OVEC are looking for decades of on-going subsidies to bailout loss-making power plants located in Indiana and Ohio. It is time to stop this madness and House Bill 247 is the vehicle for doing so.

It is important to keep in mind the two public policy goals of competitive wholesale energy markets. They are to provide reliable power at the lowest cost to consumers. As former Federal Energy Regulatory Commissioner Tony Clark wrote in his July 2017 white paper: "For many, a 'freer market' was never the end goal. The market was a tool. Affordable power was the goal …. but many state public policy makers no longer see that as the only goal ... (Electricity generating markets) were never designed for job creation, tax preservation, politically popular generation, or anything other than reliable, affordable electricity."

The two electricity markets are working in Ohio and benefiting consumers and employers, one for electricity generation and the other for capacity. There is no economic rationale for introducing subsidies into the electricity market; they amount to nothing more than corporate welfare.

Yes, there is complexity as a sophisticated and competitive electricity market serves as the foundation for a transmission market that is currently a natural monopoly, which, in turn, is the supplier of a distribution system that is also a natural monopoly. However, there is a straight

[1] Funk, John. August 5, 2014. "FirstEnergy Corp. looking to rate payers to support its struggling unregulated power." *Cleveland Plain Dealer*. Retrieved from: http://www.cleveland.com/business/index.ssf/2014/08/firstenergy_corp_looking_to_ra.html

forward four-part test that should be applied to determine if the electricity generating market is working for consumers and industry related to the electricity market:

1. Are prices lower than they would have been without competitive electricity generating markets?
2. Is new investment in generating capacity taking place in the PJM region and is investment taking place in Ohio?
3. Are uncompetitive generating boilers and plants closing down?
4. Has the reliability of the electric generating system improved?

There is one additional question that helps to determine if regulatory capture has taken place: Are non-passable costs in the transmission and distribution portions of the business increasing as revenue from the competitive side of the business is declining? In Ohio, this question can be answered because Duke Energy shed its electricity generation capacity, while AEP and FirstEnergy did not. This sets up what economists refer to as a natural experiment. We can observe how an IOU with generating plants behaves in the PUCO and Legislature compared to one that sold off its plants.

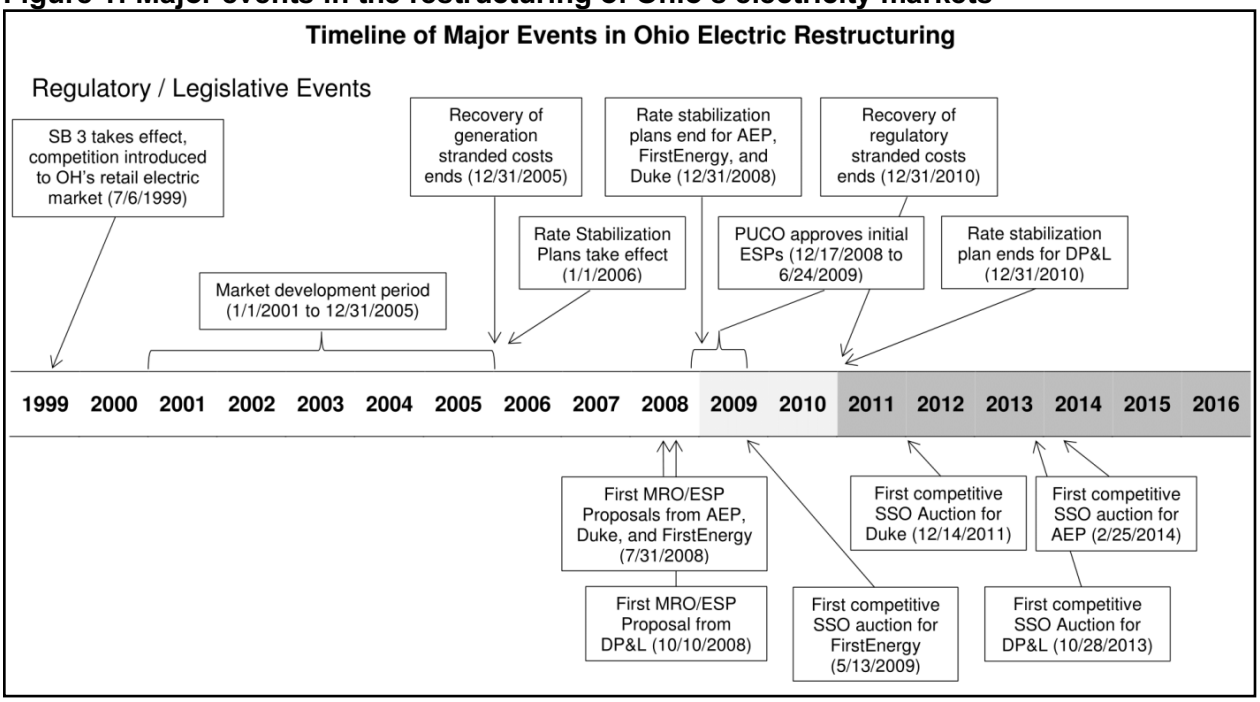
The next portion of my testimony demonstrates that competitive electricity generation markets are working for Ohio, but their benefits are being offset by increasing non-bypassable regulatory costs. This has all of the signs of regulatory-approved cross-subsidization. The second section examines how rent-seeking redistribution coalitions have been formed by the IOUs to provide the veneer of broad-based support for their ESPs, corrupting the regulatory process in so doing. And, in the last portion of my testimony I propose a new regulatory activity for the PUCO that is important to Ohio's consumers and to the continued functioning of a competitive electric generating market and I comment on how the regional transmission organization, PJM Interconnect, provides products that will obviate the need for ESPs for economic development purposes.

Electric Generating Wholesale Markets are Working—Nine Figures

Seven figures are used to demonstrate the power of competition and the offsetting cost of riders paid for by customers under ESPs. The first is a timeline of major events that have taken place in the restructuring of electricity regulation in the state of Ohio. The data displayed in Figures 2 through 7 are of the cost of electricity for mercantile customers in the Duke Energy and AEP customers service areas. Mercantile customers use at least 700,00 kilowatt hours per year in

consumption and are a mix of shoppers and non-shoppers.[2] The data were collected and provided by Scioto Energy. Figures 2 and 3 show the composition of electricity costs paid for by shopping and non-shopping, or Standard Service Offer (SSO) customers of Duke Energy. Figures 4 and 5 display the same data for AEP's mercantile customers. The purpose of these figures if to show the impact of competition in the generating markets and the offsetting impact of regulatory riders.

Figure 1: Major events in the restructuring of Ohio's electricity markets



Source: Noah Dormady, John Glenn College of Public Affairs, The Ohio State University

The Duke Energy and AEP territories provide what economists term a "natural experiment" of the regulatory behavior of IOUs that have sold off their generating assets (Duke, with the exception of its small share of OVEC) compared to the other IOUs, which retained their generating assets. The hypothesis being examined in the figures is that utilities that retain loss-making generating plants, even if the generating capacity is located in legally walled-off subsidiaries, have incentive to search for non-bypassable riders. In other words, a utility with upside down generating assets will search for offsetting subsidies from its regulated transmission and distribution businesses. The flip side of that proposition is that utilities that do not have generating assets do not have the same incentive to seek riders.

[2] The data are explained in Thomas, Andrew et al. November 2016. *Electricity Customer Choice in Ohio: How competition has outperformed traditional power regulation*. Energy Policy Center, Cleveland State University, funded by and prepared for the Northeast Ohio Public Energy Council (NOPEC).

In Figures 2 through 5 the *blue lines* indicate the average contract rate for purchased power per kilowatt hour, the *red lines* are the kilowatt hour cost of riders, and the line on top of the *yellow shaded* area is the total cost of power, adding together the data behind the blue and red lines. Figures 2 and 3 are for Duke Energy and Figures 4 and 5 are for AEP. Those in Figure 2 are Duke Enery's customers who shop for their power; Figure 3 Duke Energy's customers who take the Standard Service Offer (SSO); Figure 4 AEP shoppers and Figure 5 AEP SSO customers.

Duke Energy fully transitioned to market-priced power in January 2012. In June 2014 the majority of AEP's SSO power was based on regulatory-approved cost-plus power and in January 2015 100 percent of its power was purchased in the wholesale electricity market. The date when 100 percent of power is purchased competitively in marked by a solid *vertical solid black line* in Figures 2 to 5. The date at which a majority of AEP's power was competitively purchased in marked by a *vertical dashed black line* in Figures 4 and 5.

The key findings on the price movement of the cost of power—not including non-bypassable costs.

- After the transition from regulated power to competitively priced power was completed Duke Energy's SSO cost dropped by 37 percent and AEP's by 32 percent.
- The savings are more evident for SSO customers than for shoppers, but both benefit
- The price paid for by SSO customers gradually approaches that paid for by shoppers. This is a result one expects to see in competitive markets. What is happening is that prices are converging to a new equilibrium.
- There is no doubt that mercantile customers realized savings from competitive markets for wholesale electricity generation.

The striking differences between Figures 2 and 4 and then Figures 3 and 5 are with the costs associated with non-bypassable costs. There are sharp difference in these costs between Duke Energy and AEP.

- Duke Energy's non-bypassable costs are essentially flat from 2010 to 2016, staying near 3 cents a kilowatt hour. In fact, the cost of non-bypassable charges drop in 2015 and 2016.
- AEP's non-bypassable charges increase throughout and jump perceptibly in 2015.
- AEP's charges are about 25 percent higher than Duke Energy's.

Figures 6 graphs the non-bypassable costs for both Duke Energy and AEP. The solid lines are actually average costs and the dashed line is a trend line drawn through the data using a regression equation. Trend lines were included to smooth out fluctuations.

- Duke Energy's non-bypassable costs are essentially flat.
- AEP's non-bypassable costs trend up in relentless fashion.

Figure 7 graphs the total cost of electricity for mercantile customers who shop—this is the contract rate for purchasing power and non-bypassable costs.

- Duke Energy's costs trend down.
- AEP's costs trend up, beginning in 2012 and accelerate in 2014.

What is the difference between Duke Energy and AEP? One owns an electricity generating fleet and the other does not. Duke Energy made the right business decision and followed the guidance of the Legislature when it sold its power generation assets. The other IOUs did not.

What charges are non-bypassable for the average mercantile customer? (See Figure 8) There are three: transmission and distribution charges and other non-bypassable charges approved by the PUCO. Transmission charges are 8 percent of average cost. Distribution charges are 13 percent of the final cost. And, PUCO approved non-bypassable charges are 14 percent of the bill.

The data indicate that cross-subsidies are likely taking place when an IOU owns a money-losing fleet of power plants. This has been explicit in some of the PUCO's recent rulings.

The data for mercantile customers cannot be refuted because they come from actual billing records pulled by Scioto Energy. Similar data were collected for the other IOUs by North Shore Energy. The Energy Professionals of Ohio provided support for the data collection and the research that was contracted for by NOPEC.

The research team at Cleveland State University's Energy Policy Center and at The Ohio State University's John Glenn College of Public Affairs examined savings attributed to competitive electric generating markets and estimated about $3 billion dollars a year in savings to non-mercantile customers.

Moving from a patchwork, balkanized, state-centric regulated power market to a competitive regionally integrated power market has also improved system reliability. Figure 9 plots PJM Interconnect's data on its reserve capacity, or margin. The regulatory standard was

for 12-16 percent reserve capacity. Since the state's IOUs began to shift their electricity purchases to competitive markets in 2011 reserves have increased to more than 20 percent.

Noncompetitive power plants have been sold and shut down and more will be occurring, meanwhile Ohio is benefiting from new investments in base-load, natural gas-fired power plants. The transition for communities that rely on property tax payments from outmoded power plants will be hurt in the transition in the same way that any community suffers when a major employer shuts down. However, the sites of former power plants are well connected to transmission lines and often well situated for redevelopment after they are cleaned up, especially if they have access to natural gas pipelines.

In a market-based economy markets should operate for the benefit of consumers, not for the benefit of companies. House Bill 245 will ensure that this remains true for electricity customers, and not just the few that are favored in special interest carve-outs in ESPs.

Figure 2: Electricity costs paid by Duke Energy's shopping mercantile customers

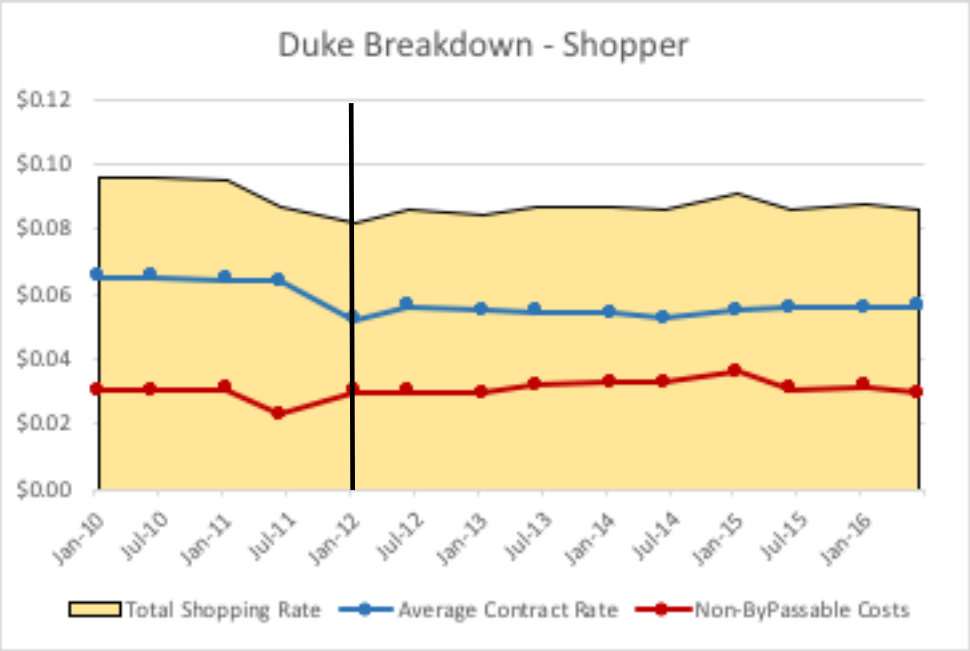


Figure 3: Electricity costs paid by Duke Energy's non-shopping (SSO) customers

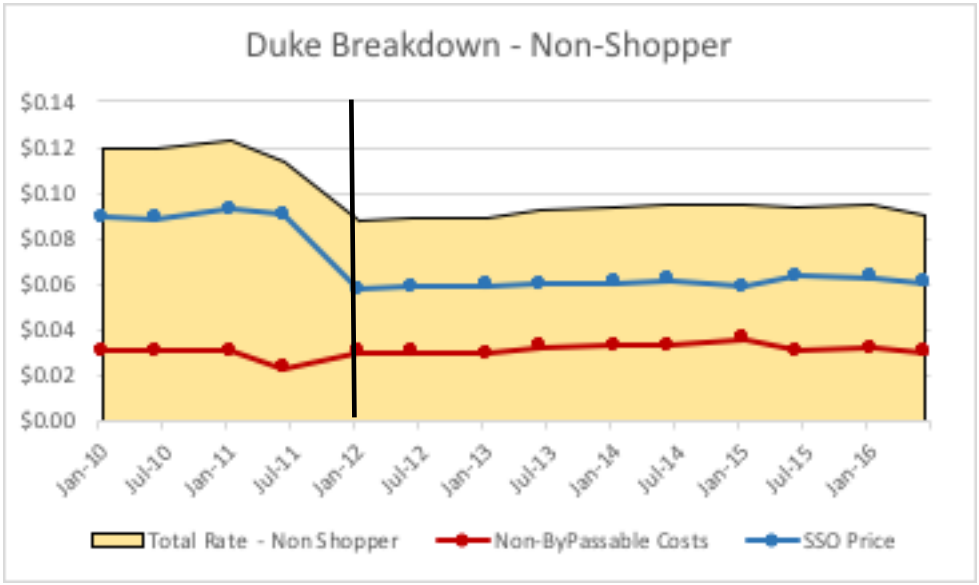


Figure 4: Electricity costs paid by AEP's shopping mercantile customers

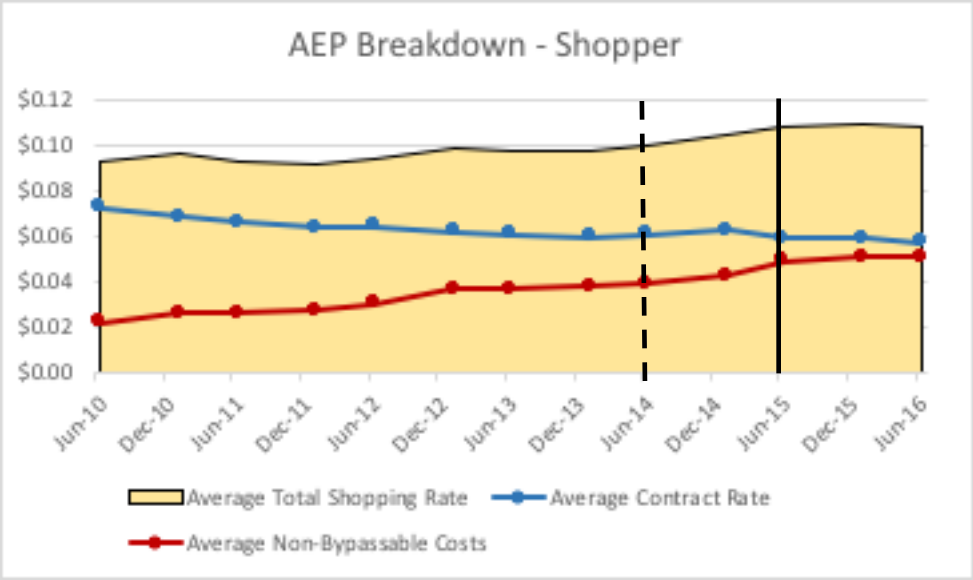


Figure 5: Electricity costs paid by AEP's non-shopping (SSO) customers

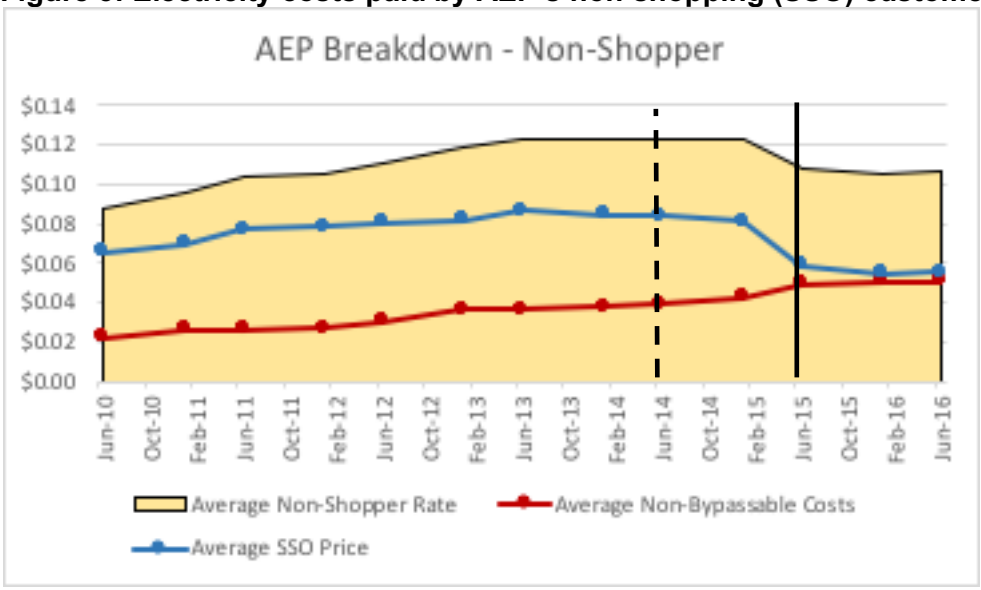


Figure 6: Non-Bypassable costs increase faster for AEP's customers

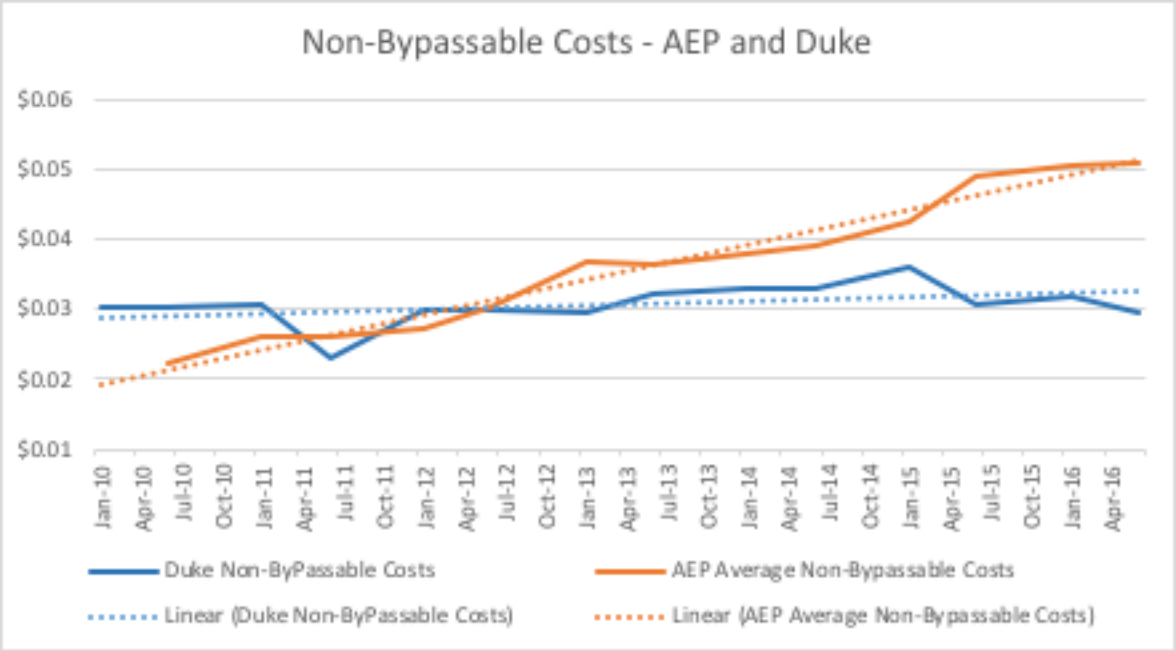


Figure 7: Total shopping rate (contract rate plus riders) higher and increase faster in AEP territory.

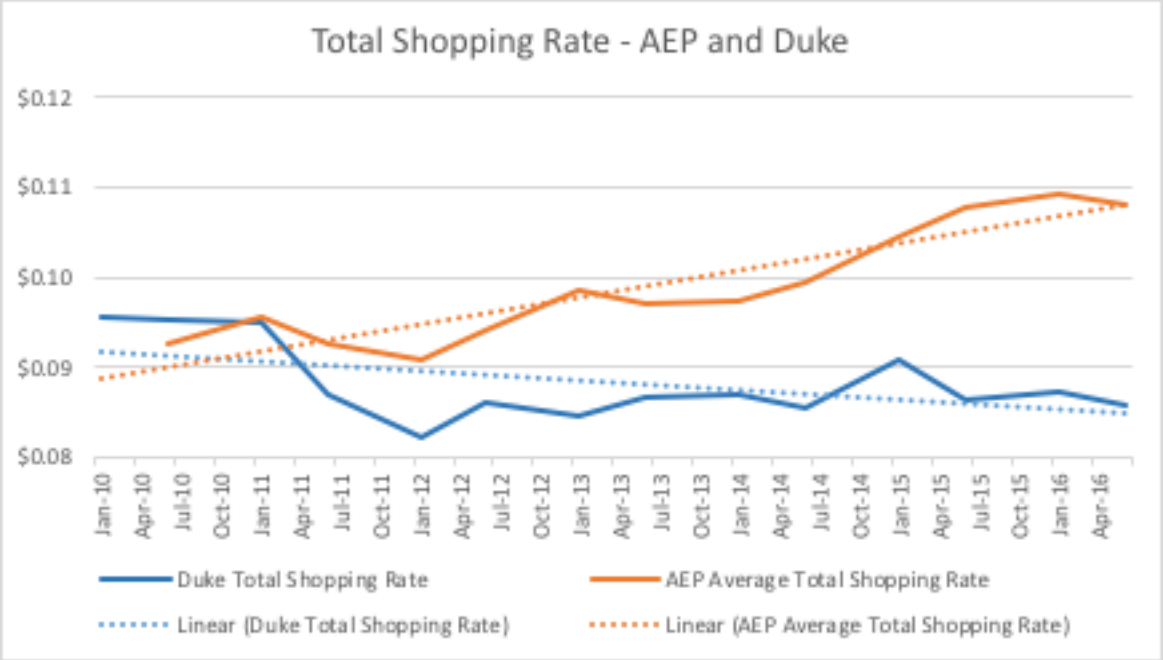


Figure 8: What makes up the cost of electricity for the average Mercantile customer in 2016?

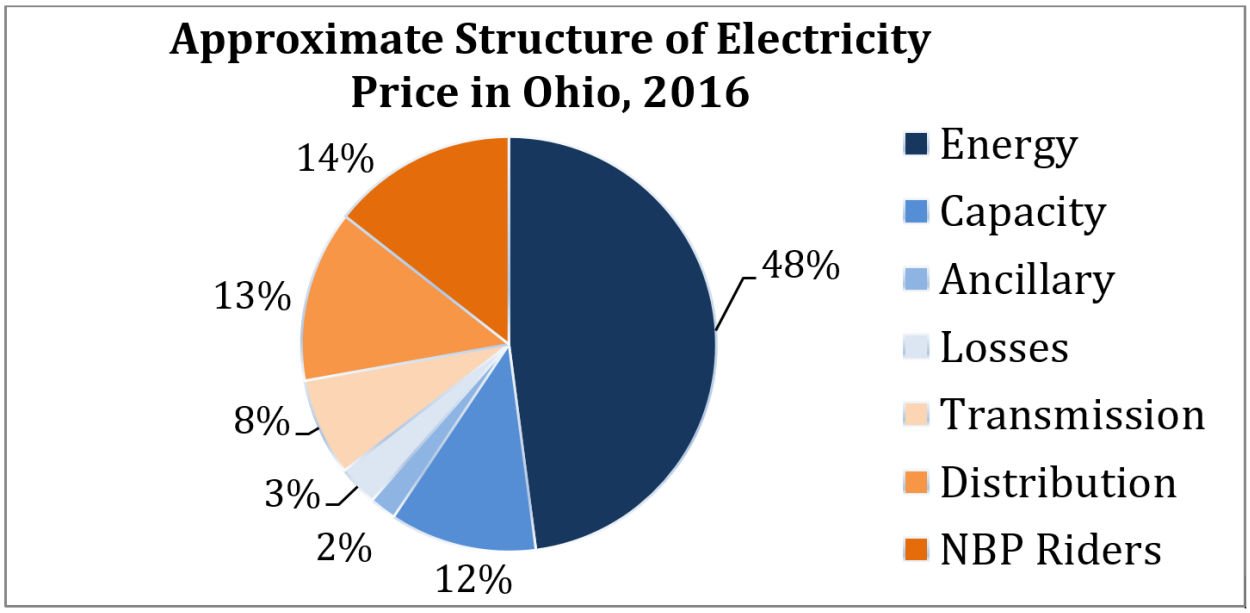
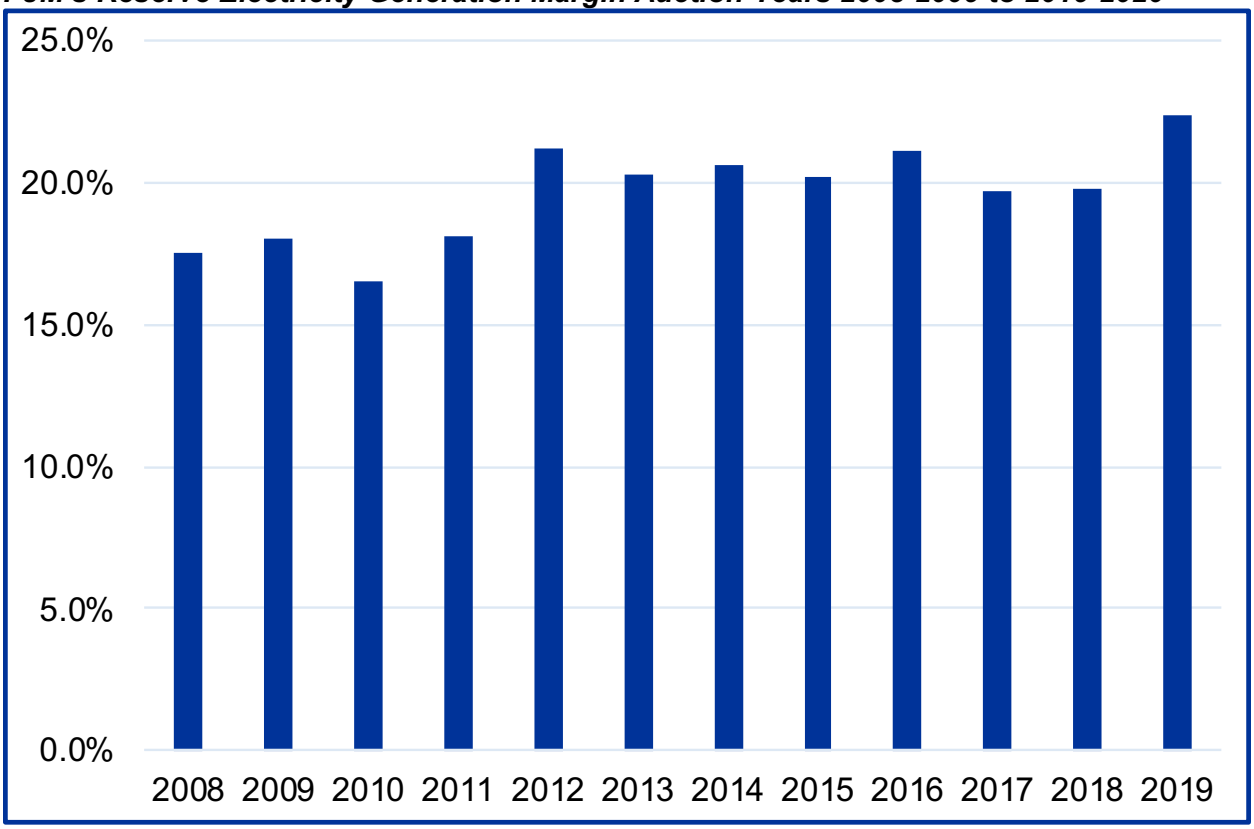


Figure 9: The reliability of the electricity generation system in PJM Interconnect's region has strengthened with competitive generating markets

PJM's Reserve Electricity Generation Margin Auction Years 2008-2009 to 2019-2020



Source: http://www.pjm.com/markets-and-operations/rpm.aspx

The ESP Process is an Insider's Game: Living with Redistributive Coalitions

I have been an expert witness testifying against the ESPs brought forward by the subsidiary Electricity Distribution Utilities of FirstEnergy and AEP. In each of these hearings the IOUs brought forward a set of signatory parties in support of the agreement in response to the PUCO's "reasonableness" criteria for evaluating stipulations: (1) the stipulation must be the product of serious bargaining among capable, knowledgeable parties; (2) the stipulation must not violate any important regulatory principle or practice; and (3) the stipulation must, as a package, benefit ratepayers and the public interest." The signatories are the purported demonstration of meeting the third criterion

It is my observation that, in general and with the exception of PUCO Staff, the signatory parties do not represent the public interest; they only represent their own interests. The record of the ESPs as they move from the original submission, through the succeeding stipulations, to the final decision demonstrates that the signatory parties are nothing other than a cynically and carefully crafted redistributive coalition that provides the veneer of the public interest to a collection of purely private interests. They are grasping, cost-shifting, and rent-seeking.

The pattern across these two cases is similar. The original ESP proposal is submitted without signatory parties. Opposition arises to the proposal. A stipulation is filed that has a set of carve-out rates, side payments, or other narrowly crafted benefit that applies solely to a signatory party with a binding guarantee of support of the entire ESP. As new stipulations appear, new carve outs materialize, and then the beneficiaries sign on. The *quid pro quo* sits in the stipulation. Compare the stipulation to its predecessor filings, see what has changed in the rates and payments, and then flip to the signatory pages and see who has signed on or been added to the settlement.

The most entertaining stipulation to read is always the last one. I think of it as the last train to Clarksville and look to see who will be meeting it at the station. Here the closing offers are made to the opposition and they evaluate if what they get is worth the signature of their organization. Those that sign made it onto the last train out of the station.

What is concerning about the way signatory parties are bought off in the regulatory process is that the directed payments, special rates, and other inducements that are part and parcel of the ESP appear to violate the second of the PUCO's criteria: "a stipulation must not violate any important regulatory principle or practice." The PUCO has stated that it disfavors

direct payments to intervenors of funds, even if those funds are to be refunded to ratepayers.[3] Yet, this appears to be the case with the funds and discounts provided to organizations in the Stipulations that I have read.

I refer to the signatory parties, with the exception of the staff of the PUCO, as members of a redistributive coalition. The purpose of a redistributive coalition is to use political or regulatory processes to generate financial benefits that cannot be earned through the marketplace. This is known in public choice economics as rent-seeking. A redistributive coalition is a relatively small group that promotes policies for their mutual financial benefit. The cost of organizing the group is small relative to the benefits received. The costs are limited to the nominal costs of organizing (the negotiations), together with the sum of the costs of the payments and rate discounts granted to each member. In general, the costs of these payments to the organizer of the coalition are far outweighed by the returns.

In the case of ESPs the actual cost of organizing and paying the members of the redistributive coalition is not be borne by the organizer. The organizational costs are passed on to ratepayers in the form of usual costs of the regulated utility. And, the funds that the members of the coalition win for themselves are shifted onto the large pool of un-favored electricity users. Therefore, the direct or lasting expense incurred by the organizer, the Companies, is minimal. Some of the coalition members get cost reductions, a predictable financial benefit, most obtain benefits that will be passed on *only* to their members, and others find funds to support their organizations' missions. Some coalition members can use the windfalls to pay for their administrative or litigation expenses. Nonetheless, while many of these pass-through benefits may be socially beneficial or meritorious to a relatively small group of beneficiaries, it is at the expense of a much larger group.

The list of signatories are carefully constructed. In support of its settlement, FirstEnergy states that the members of the redistributive coalition "represent varied and diverse interests including large industrial customers, small and medium businesses, mercantile customers, colleges and universities, low income residential customers, organized labor, and a large municipality."[4] The façade of universality is apparent later in the same testimony of a

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[3] See *In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Recover Costs Associated with the Ultimate Construction and Operation of an Integrated Gasification Combined Cycle Electric Generation Facility*, Case No. 05-376-EL-UNC, Order on Remand at 11-12 (February 11, 2015).

[4] *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. §*

FirstEnergy executive: "The Signatory Parties represent a broad range of interests including the Companies, another Ohio electric distribution utility, organized labor, various consumer groups (themselves representing a broad range of customer classes and varied interests), and a large municipality."[5] The same executive concluded that given the group of Signatory Parties that make up the coalition, the stipulation as a package benefits customers and the public interest.[6]

However, the list also raises a series of questions: How are they representative? Do they represent their peers and similar organizations in a negotiation? Were they able to obtain similar benefits for their peers or at the exclusion of their peers? Generally speaking, the answers to the last two questions are no: the signatory parties represented only themselves and the extractions they obtained are restricted to their organizations alone. They are self-dealing.

Here are the questions raised about just a few of the signatory parties in the FirstEnergy Stipulation:

- Why is one City a direct beneficiary while other communities with similar low-income populations, such as Toledo, are excluded?
- Why are private colleges and universities beneficiaries, while public colleges and universities are excluded?
- Why are Cleveland's small business advocacy organization COSE's members eligible for subsidized energy audits, while small business members of other chambers of commerce or organizations are left out?
- Why are discounts and other considerations being directed at a very limited number of large industrial companies through a complicated and opaque set of riders? The political power of these companies cannot be discounted as a reason for their inclusion.

The expected attributes of membership in a redistributive coalition are all evident in the FirstEnergy and AEP stipulations: limit the cost to the organizer, maximize the power and ability to steer benefits to the members of the coalition, maximize the financial return to the organizer, and have the returns cascade in relation to the power of the participant. It is all the better if the rewards to the participants are shifted onto the general public and away from the organizer.

4928.143 in the Form of an Electric Security Plan, Case No. 14-1297-EL-SSO, Supplemental Testimony of Eileen M Mikkelsen at 6 (December 22, 2014).

[5] Id. at 7.

[6] Id. at 8.

All members of specific classes of electricity users are not invited to become members of the coalition. This is a political coalition assembled to provide a veneer of broad support for the ESP in exchange for a limited set of pre-defined financial benefits. In exchange, the members of the coalition commit to endorse the totality of the ESP application. One of the FirstEnergy stipulations stated: "each Signatory Party agrees to and will support the reasonableness of the ESP IV and this Stipulation before the Commission, and to cause its counsel to do the same."[7]

Is there anything improper about forming a redistributive coalition? There are improprieties. Redistributive coalitions: promotes economic inefficiency, mandate transfers of income through regulation, devolve what should be powers of the Legislature to the PUCO, and allow the politics of the regulatory process to determine economic winners and losers. While there are improprieties, forming redistributive coalitions are standard practice in enacting ESPs.

The signatory parties to an ESP are a political coalition designed to extract rewards from a regulatory or legislative proceeding for its members. Nothing more, nothing less. It just has to be recognized for what it is, and for what it is not. It is not a bargaining body that represents neither all of the Companies' ratepayers, nor the public interest. The bargains struck will result in most of the redistributive coalition's benefits being paid for by the vast majority of ratepayers. The broad pool of electricity users pay a *de facto* tax enabled and enforced by the PUCO to benefit the redistributive coalition assembled by the IOUs and the largest beneficiary is the organizer, the IOUs.

Further, the costs of learning about and understanding the impact of the proposals set forth in the various stipulations in an ESP Application are substantial because these costs are opaque, buried in a series of riders that are beyond the ability of a typical ratepayer to understand. And, subsidies that are being handed out to individual companies are hidden under the assertions that they are proprietary trade or business secrets. This standard is, of course, nonsense. The cloak of proprietary business information is being thrown over special carve outs that are being paid for by residential ratepayers or the competitors of the company in question.

Additionally, non-members of the redistributive coalition are further disadvantaged by the large, complicated, last minute submittals to the Commission made by the IOUs—this is lawyerly tradecraft. Additionally, many of the provisions embedded in the stipulations are

[7] *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. § 4928.143 in the Form of an Electric Security Plan*, Case No. 14-1297-EL-SSO, Stipulation and Recommendation at 18 (December 22, 2014).

written in ways that are extremely difficult to disentangle. The disinfectant of sunlight is required if ESPs are to continue. Better yet, be done with them.

Conclusions

In an economy with well-functioning regional markets for electricity generation and capacity many of the carve-outs and special industrial deals that are part-and parcel of Electric Security Plans are not need. Allowing the competitive markets to work without interference, without subsidies, and without special deals will provide much-needed transparency in the process, create market solutions and competitive options, and will stop cost shifting that takes place for Ohio companies that are part of the small, select, club that have rights to the discounts granted to them in the ESPs that are not available to the unprivileged majority of the economy who do not belong to the club. This is true and lasting contribution to the economic development of the state. Cost competitiveness works best through sustainable markets rather than in closed door negotiations that favor the powerful few. Ohio is an energy-using industrial state. Upping electricity rates for the vast majority of the state's employers to favor benefits a connected few is a fool's errand.

The PUCO needs to operate in a way that recognizes the reality of the competitive electric generating markets. It needs to become an analytical watchdog and advocate for Ohio's consumers. The PUCO needs to become an advocate and for competitive generation and capacity markets. There is currently freedom of entry and exit in PJM's generating market and it is competitive. However, the PUCO needs to be vigilant to ensure that this regional market does not become oligopolized in the future, ensuring fair and effective competition in the state of Ohio. HB 247 will allow these competitive markets to flourish.

I end by returning to the four-part test and provide the answers:

1. Are prices lower than they would have been without competitive electricity generating markets? Yes, consumers saved $15 billion from 2011 to 2015 thanks to competitive generating markets and the foresight of the Legislature. If ESPs are ended and competition maintained Ohioans will save $2.8 billion a year.

2. Is new investment in generating capacity taking place in the PJM region and is investment taking place in Ohio? $8.9 billion in new generation capacity has been either invested in Ohio or is on the books. With a commitment to competition more will come.

3. Are uncompetitive generating boilers and plants closing down? 56 coal fired boilers have closed and their capacity has been replaced with energy from Ohio-located (or locating) gas-fired plants.

4. Has the reliability of the electric generating system improved? Yes, the regional electricity generating margin hovers around 20 percent. This s far in excess of previous regulatory standards.

I urge you to vote in favor of House Bill 247: end ESPs and mandate the separation of the generating portion of the business from the regulated portions. Ohioans have paid for stranded generating assets a few times—let us not pay again.