BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the 2018 Long-Term Forecast Report on behalf of Ohio Power Company and Related Matters.	)))	Case No. 18-0501-EL-FOR
In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into Renewable Energy Purchase Agreements for Inclusion in the Renewable Generation Rider.	))))	Case No. 18-1392-EL-RDR
In the Matter of the Application of Ohio Power Company to Amend its Tariffs.	))	Case No. 18-1393-EL-ATA

REPLY BRIEF
OF
THE OFFICE OF THE OHIO CONSUMERS' COUNSEL

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I. INTRODUCTION

Ohio's 1999 law for a deregulated competitive energy market has responded to customers' demand for power generally and for renewable energy specifically. AEP's 1.5 million consumers have their choice of dozens of marketers' offers for renewable energy, with nearly three dozen marketer offers for 100% renewable energy. The market is working. That's what the Ohio General Assembly envisioned in its 1999 law. But AEP continues its history of resisting the market and the law, to the detriment of consumers. AEP prefers a system of state-approved subsidies, collected at consumer expense, instead of market pricing for power plants according to supply and demand. AEP's proposal to re-monopolize power plants and charge its captive customers a $100 million fee was illegal from the moment it was filed. In its testimony the PUCO Staff rightly called out AEP for failing the statutory standard. The PUCO Commissioners have no option but to

deny AEP's proposal and preserve the competitive power plant market under Ohio law that is bringing renewable energy to Ohioans.

II. THE PUCO SHOULD STOP VALIDATING THE UNFAIR USE OF ITS SETTLEMENT PROCESSES TO THE DETRIMENT OF CONSUMERS AND AGAINST THE PUBLIC INTEREST.

AEP and others emphasize that the proposal before the PUCO is consistent with two PUCO-approved settlements.[1] Considering the history of those settlements, that's a bad thing, not good. These settlements were contrived largely for AEP to obtain PUCO approval of a customer-funded subsidy for AEP's share of the coal power plants of the Ohio Valley Electric Corporation ("OVEC").

So the larger context of this case is making consumers subsidize coal as a prelude to subsidizing solar. Bad idea. To AEP, "all of the above" for generation means making consumers subsidize all of the above.

Moreover, AEP's two settlements in three cases included two so-called "electric security plans."[2] Those plans should be viewed with great skepticism given that utilities possess superior bargaining power there, as recognized by former PUCO Commissioner Roberto back in 2008.[3] Her opinion, concurring in part and dissenting in part, stated that " the balance of power created by an electric distribution utility's authority to withdraw a

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[1] AEP Brief at 7-8; Environmentals' Brief at 9-11.

[2] *In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement*, Case No. 14-1693-EL-RDR; *In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer*, Case No. 16-1852-EL-SSO; *In the Matter of the Application of Ohio Power to Establish a Standard Service Offer*, Case No. 13-2385-EL-SSO.

[3] *In re FirstEnergy's 2008 ESP Case*, Case No. 08-935-EL-SSO, Second Opinion and Order, Opinion of Commissioner Cheryl L. Roberto Concurring in Part and Dissenting in Part (Mar. 25, 2009) at 1-2 (citations omitted).

Commission-modified and approved plan creates a dynamic that is impossible to ignore.*** . The Commission must consider whether an agreed-upon stipulation arising under an ESP represents what the parties truly view to be in their best interest - or simply the best that they can hope to achieve when one party has the singular authority to reject not only any and all modifications proffered by the other parties but the Commission's independent judgment as to what is just and reasonable. ***In light of the Commission's fundamental lack of authority in the context of an ESP application to serve as the binding arbiter of what is reasonable, a party's willingness to agree with an electric distribution utility application can not be afforded the same weight due as when an agreement arises within the context of other regulatory frameworks."[4] Two other PUCO Commissioners, Mr. Centolella and Ms. Lemmie, expressed concerns similar to those of Commissioner Roberto.[5]

A utility's advantage in the PUCO's settlement process is further increased by its ability to offer inducements, including inducements funded by other people's money, to gain signatures. There were many inducements to parties in the two settlements preceding this case. Ohio Partners for Affordable Energy (OPAE), Sierra Club, Mid-Atlantic Renewable Energy Coalition (MAREC), Ohio Energy Group (OEG) and others, were the beneficiaries of the inducements. And the inducements were largely funded using other people's money.

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[4] *Id.*

[5] *See id.,* Opinion of Commissioners Paul A. Centolella and Valerie A. Lemmie, Concurring (Mar. 25, 2009) at 2 (the ability of an electric distribution utility to withdraw (and its prior withdrawal) "need to be taken into account when considering the weight to be given to this stipulation" and "The Commission must evaluate whether the stipulation represents a balanced and appropriate resolution of issues.").

Under the first settlement AEP got approval for a long-term power purchase agreement ("PPA"), requiring customers to subsidize AEP's coal power plants.[6] OCC estimated that the price tag for the subsidy would be $1.5 billion (on a net present value basis). *Id.* at 63. The signatory parties signed onto the purchase power agreement, despite its $1.5 billion estimated cost, because they were able to obtain cash or cash equivalents from AEP for their signature.

For instance, OPAE settled with AEP and received $200,000 in 2016 for managing a community assistance program. Opinion and Order at 31. Additionally, for 2017, OPAE settled with AEP and was given a "management fee" equal to five percent of the community assistance program, whose annual budget was capped at $8,000,000. *Id.* AEP's settlement also gave OPAE continued rights to administer the program (and receive an annual management fee) so long as AEP's energy efficiency/peak demand reduction plan continued. *Id.* AEP's payments to OPAE were not funded by AEP shareholders, but rather came from other people's money, including from residential customers represented by OCC and low-income customers represented by the Appalachian Peace and Justice Network (APJN).

The hypocrisy of the Ohio Partners for Affordable Energy (OPAE) is as follows. The OPAE that is now criticizing consumer advocates because we want to protect Ohioans from subsidizing power plants (which in this case happen to be solar) is the same OPAE that signed AEP's settlements for making Ohioans subsidize AEP's dirty

[6] *In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement*, Case No. 14-1693-EL-RDR; Opinion and Order (Mar. 31, 2016).

coal plants (in addition to solar). Our alleged "sin" is that we are consistent and principled for the millions of consumers we represent. Not so for OPAE, that was offered funds from AEP to sign settlements to support dirty coal plants and agreed.

In the settlements, AEP committed to pursue developing 900 MW of renewable power plants. This commitment was to be fulfilled using other people's money (monopoly customers' money), not AEP's shareholder money. AEP proposed to charge all customers for the renewable power projects through a Power Purchase Agreement Rider. *Id.* at 44. AEP's commitment to these renewable energy projects was "premised upon AEP receiving full cost recovery (based on a PPA structure) through the PPA rider." *Id.* In utility speak, "recovery" means charging customers.

MAREC agreed to support PUCO approval of the wind projects and full cost recovery (from customers). *Id.* There was also an agreement for a rate design for the renewable purchase power agreement that gave large industrial customers (with usage above 833,000 kWh) a break on paying for the renewable projects, meaning they don't pay purchase power charges for usage above 833,000 kWh. *Id.* at 44. Again, this benefit was not funded by AEP but was funded by other people, with the cost of the price break allocated to the remaining customers of AEP.

AEP filed yet another settlement providing additional value to another group of signatory parties using other people's money. OCC was the sole party to oppose this second settlement.[7] Under this settlement, the Renewable Generation Rider was created

[7] Others signed onto it, including OEG, MAREC, the Natural Resource Defense Council (NRDC), Environmental Law and Policy Center (ELPC), the Environmental Defense Fund (EDF), OPAE, and the Sierra Club.

to subsidize the renewable generation that AEP had committed to in Case No. 14-1693.[8] The creation of the new rider cemented AEP's ability to collect costs of its 900 MW renewable energy commitment from its captive customers. And at the same time, the Purchase Power Agreement charge was extended allowing AEP to continue to collect costly OVEC coal subsidies from its captive customers.

Once again, AEP provided parties with financial incentives in return for their support of this second settlement. That is, other peoples' money, not AEP's shareholder money, made the commitments happen. For OPAE, the $1 million annual funding of the Neighbor-to-Neighbor program was continued and the utility was given the ability to propose that customers pay subsidies for OPAE's funding in future cases.[9] Marketers got a consolidated billing pilot program, funded in part (50%) by customers.[10] Industrial users got benefits (using other people's money) through expanding AEP's interruptible power service program, with funding for the credits picked up by other customers.[11] Interruptible credits to certain customers were increased, again using other people's money, not AEP's shareholder funds.[12] Unfortunately for residential consumers, the PUCO approved both of these settlements.[13] In large part this case is but another step toward AEP getting millions upon millions of dollars, at the expense of its captive

[8] *See* PUCO Case No. 16-1852-EL-RDR, Joint Stipulation and Recommendation at 7-8 (August 25, 2017).

[9] *See id.* at 5.

[10] *See id.* at 35-37.

[11] *See id.* at 20-26.

[12] *Id.* at 34.

[13] *See id.* at Opinion and Order (April 25, 2018).

customers, while being supported by those who received benefits from AEP, funded with other customers' money. [14]

All this has given AEP a soapbox to proclaim its greenness at consumer expense despite its subsidy proposal being illegal from the get-go. In the echo chamber that AEP seeks to construct, concern about its non-green history as one of the worst polluters in the nation[15] -- to this day making Ohioans pay subsidies to extend the lives of dirty coal plants – is to be muted.

III. THE PUCO IS BARRED FROM ADOPTING AEP'S RE-REGULATORY PROPOSAL THAT VIOLATES THE OHIO LAW INTENDED TO BENEFIT ELECTRIC CUSTOMERS THROUGH A COMPETITIVE AND DEREGULATED POWER PLANT MARKET

Under Ohio law, with few exceptions, Ohio generating plants (including renewable projects) are to be developed in the marketplace, without involvement of monopoly utilities and charges to their captive customers.[16] A utility only has a limited opportunity to ask the PUCO to approve customer funding for a new generation plant that it proposes to own or operate. The limited opportunity is presented in R.C. 4928.143(B)(2)(c). A utility's ability to charge customers for monopoly megawatts

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[14] *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 12 (Feb. 11, 2015) (the PUCO warned against the practice of paying signatory parties, stating that "parties to future stipulations should be forewarned that such provisions are strongly disfavored by the Commission and are highly likely to be stricken from any future stipulation submitted to the Commission for approval.")

[15] *See* OCC Ex. 13 at 10-17; Tr. V at 1211 (OPAE Witness Rinebolt acknowledging that AEP has been a significant polluter within the utility sector); OCC Ex. 16 (showing Ohio's emissions estimates from 1990 through 2014).

[16] OCC Ex. 18 at 14 (Dr. Lesser).

under R.C. 4928.143(B)(2)(c) comes into play if and only if numerous pre-conditions are met, one of which is "need" for the power "based on resource planning projections submitted by the electric distribution facility."

The PUCO Staff, joined by OCC and others, urged the PUCO to find that the word "need" in the law must be read to give the plain words of the statute ("resource planning projections") their due. The others include the Ohio Manufacturers' Association (OMA), Kroger, Direct Energy, Industrial Energy Users (IEU), the Ohio Coal Association (OCA), and IGS. In the succinct words of the PUCO Staff, ""[n]eed' means a lack of energy, capacity, or RECs."[17] It is, as pointed out by Direct Energy, an "objective" finding of need.[18]

Typically, in resource planning the utility's power supply and customers' demand for power are balanced and include some excess power for forced plant outages. And, as OCC explained, the PUCO has also evaluated need in terms of the renewable energy benchmarks found under Ohio law (4928.64).[19]

On the opposite end of the spectrum, AEP, the Environmental advocates,[20] the Ohio Partners for Affordable Energy (OPAE), the Mid-Atlantic Renewable Energy Coalition, and the Ohio Energy Group struggle with the meaning of the statute. AEP, in

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[17] PUCO Staff Brief at 7.

[18] Direct Energy Brief at 5.

[19] *In the Matter of the 2010 Long Term Forecast Report of the Ohio Power Company*, Case No. 10-501-EL-FOR., Opinion and Order at 26 (Jan. 9, 2013) ("*Turning Point*").

[20] Sierra Club, Ohio Environmental Council, and Natural Resources Defense Council filed a joint brief. For ease of discussion OCC will refer to these intervenors collectively as the Environmental advocates.

particular, claims the issue of need is a subjective policy debate,[21] not a legal debate, parting company with OEG who alleges just the opposite.[22] AEP and the parties aligned with AEP allege that the law is ambiguous and must be construed according to forecasting rules and laws. These parties conveniently ignore (or attempt to distinguish) the PUCO's precedent objectively defining need in the *Turning Point* case.

As discussed below, the multi-faceted statutory definition of "need" as asserted by these parties emanates from what charitably could be called a misreading of the PUCO's rules (though self-interest may play its role). Their definition would encompass factors including customer wants, fuel diversity, environmental and health concerns, economics, economic development, Ohio energy policies, energy conservation, rate volatility, rate stability, the financial status of AEP, equity among customer classes and other matters the PUCO deems appropriate.[23] And in order to accept the vast, unfettered definition of need espoused by AEP and its supporters, the PUCO would have to ignore or misapply Ohio's rules of statutory construction. The PUCO should decline to do so.

A. The PUCO's forecasting rules are enabling rules that cannot broaden the PUCO's authority under Ohio law.

The Ohio Legislature has determined the level of renewable resources needed for Ohioans through the setting of renewable portfolio standards and solar portfolio standards.[24] The Ohio General Assembly has, under S.B. 310, explicitly declined to

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[21] AEP Brief at 1.

[22] OEG Brief at 1.

[23] *See* AEP Brief at 16-18 ("Rule 6" factors); MAREC Brief at 10-12; Environmentals' Brief at 3, 8; OPAE Brief at 5-8; and OEG Brief at 4-6.

[24] R.C. 4928.64.

provide any specific incentives to build Ohio-based solar or wind plants, beyond what is presently being built in the competitive market by market participants.

The General Assembly has also determined that utilities will only have limited opportunities to seek customer funding for a new generation plant that they can own or operate.[25] The PUCO has recognized that R.C. 4928.143(B)(2)(c) acts as a safety net for consumers. It operates in the event that market-based solutions do not emerge for this state's generation needs.[26] The statute provides customers the "best of both worlds" as OEG notes,[27] allowing Ohioans to rely on the PJM markets to meet their power needs yet creating a safety net for customers if there is a market failure.

But rather than focusing on the law, AEP and its supporters look to the administrative rules of the PUCO for support for their proposed power plant project. The administrative rules that AEP relies on pre-date the 2008 law but were left largely intact in order to facilitate the PUCO's review of utilities' renewable energy compliance.[28] AEP apparently believes that because the PUCO did not change its forecasting rules, those rules can and should dictate the public policy to be followed under the later-enacted Ohio laws. AEP is mistaken.

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[25] R.C. 4928.143(B)(2)(c).

[26] OCC Ex. 18 at 26 (Dr. Lesser) (describing the law as a market "safety valve;" s*ee also, In the Matter of the Application of Columbus S. Power Co*., Case No. 11-346-EL-SSO, Opinion and Order at 39-40 (Dec. 14, 2011) (describing the generation resource rider as a "lifeline").

[27] OEG Brief at 2.

[28] *In the Matter of the Adoption of Rules for Alternative and Renewable Energy Technology, Resources, and Climate Regulations*, Case No. 08-888-EL-ORD, Entry on Rehearing at ¶81-83 (PUCO denying AEP, FirstEnergy, and Duke's request that Rule 5-5-06 be deleted in its entirety, after finding that the rule would facilitate analysis and planning related to renewable energy benchmark requirements under S.B. 221).

It is well settled that an administrative agency (like the PUCO) has only such regulatory power as is delegated to it by the General Assembly.[29] Authority that is conferred by the General Assembly cannot be extended by the administrative agency.[30] Administrative regulations (like the PUCO's rules) cannot dictate public policy. Rather such regulations can only develop and administer policy already established by the General Assembly.[31] Because the power delegated is to administer rather than legislate, an administrative agency may not promulgate rules which add to its delegated powers, no matter how laudable or sensible the ends sought to be accomplished.[32]

In *D.A.B.E., Inc. v. Toledo-Lucas County Board of Health*,[33] the Ohio Supreme Court ("Court") was asked to determine whether a clean indoor air regulation adopted by a local board of health was valid. The regulation prohibited smoking in all public places, as defined by the board. The board argued that Ohio law vested it with a broad grant of authority necessary to adopt the regulation. The board also argued that the regulation was necessary to protect public health, was reasonable, non-discriminatory, and constitutional.

The Court found that there was no express grant of power to the local board of health allowing it unfettered authority to promulgate any health regulation it deemed

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[29] *D.A.B.E., Inc. v. Toledo-Lucas County Bd. Of Health*, 96 Ohio St.3d 250, 2002-Ohio-4172, ¶38.

[30] *Id.*, citing to *Burger Brewing Co. v. Thomas* (1975), 42 Ohio St.2d 377, 379, 329 N.E.2d 693.

[31] *Id.* at ¶41, citing to *Chambers v. St. Mary's School* (1998), 82 Ohio St.3d 563, 567, 697 N.E.2d 198.

[32] *Knutty v. Wallace*, 84 Ohio App.3d 623 (F.C. C.A. 10th Dis.).

[33] *D.A.B.E., Inc. v. Toledo-Lucas County Bd. Of Health*, 96 Ohio St.3d 250.

necessary.[34] Finding no express delegation, the Court determined there was no implied authority either to adopt the smoking ban. The Court found that the board had unlawfully engaged in policy-making "requiring a balancing of social, political, economic, and privacy concerns. Such concerns are legislative in nature, and by engaging in such actions, petitioner has gone beyond administrative rule-making and usurped power delegated to the General Assembly."[35]

The Court's holding in *D.A.B.E., Inc. v. Toledo-Lucas County Board of Health* is instructive. Just like the local board of health in *D.A.B.E., Inc. v. Toledo-Lucas County Board of Health,* AEP seeks to dictate public policy through administrative rules. AEP construes the PUCO rules as establishing a policy promoting specific resources (renewables) even when there is no need for the resources and the market is providing sufficient resources. AEP asks the PUCO to interpret its forecasting rules in a manner that completely undermines the way R.C. 4928.143(B)(2) works as a safety valve. Rather than restricting the use of monopoly megawatts, the rules, as interpreted by AEP, would encourage monopoly megawatts to be developed based on subjective factors that balance social, political, economic, and environmental concerns.

But no matter how laudable the ends sought, the PUCO cannot add to or subtract from the law (R.C. 4928.143(B)(2)). The PUCO must enforce but not declare public policy. Public policy is set through the General Assembly. As Dr. Lesser testified, addressing social issues (like reducing coal mining and oil production deaths, promoting

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[34] *D.A.B.E., Inc. v. Toledo-Lucas County Bd. Of Health*, 2002-Ohio-4172, ¶41.

[35] *Id.*

gender fairness and equality and combatting the opioid crisis)[36] are far afield from the standard in Ohio law and the PUCO's regulatory purview under the law.[37]

The General Assembly has determined to limit the instances where a monopoly can own or operate power plants. And the General Assembly has established the amount of renewable and solar energy that is required to meet Ohioan's electric needs through 2026. The PUCO must stick to the General Assembly's plan, as set forth in Ohio law. The PUCO cannot create public policy by interpreting its forecasting rules to undercut the statutory limits on monopoly megawatts.

B. If a utility can show that it needs additional power to serve its customers, then under the enabling rules of R.C. 4928.143(B)(2)(c)(i) the PUCO must evaluate the best power source to meet customers' needs, considering factors set forth in PUCO Rule 4901:5-5-06(B)(3)(e)(iii). Because AEP failed to show it needs additional power to serve its customers, its proposal is unlawful and the PUCO's inquiry is at an end.

When Ohio law (R.C. 4928.143(B)(2)(c)) directs the PUCO to determine "need" for the facility it means need as measured in the utility's long-term forecast filing. No more and no less. The PUCO has no authority, under any rule of statutory construction, to add to, enlarge, supply, expand, extend or improve the provisions of the statute to meet a situation not provided for.[38]

But AEP and the monopoly megawatt supporters pursue a twisted path that leads them away from the law. That is an unlawful path the PUCO should not travel.

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[36] *See* AEP Ex. 12 at 7-10 (Witness Buser testifying to the social benefits of renewable projects).

[37] OCC Ex. 18 at 94.

[38] *State, ex rel. Foster, v. Evatt* (1944), 144 Ohio St. 65, 29 O.O. 4, 56 N.E. 2d 265, at paragraph eight of the syllabus.

Both AEP and OPAE believe the PUCO should go directly to its forecasting rules for guidance in construing whether there is a need for power that would allow AEP to develop (and charge customers for) monopoly megawatts in Ohio.[39] AEP and OPAE seize upon a subsection of the Ohio Adm. Code rules on forecasting, 4901:5-5-06(B)(3), entitled "Integrated Resource Plan." Within that section, there is a subsection (e), setting out reporting requirements that "shall provide information sufficient for the commission to determine the reasonableness of the resource plan, including ***." Included within subsection (e) is another subsection (iii) listing factors (a) through (h).

It is these factors (4901:5-5-06(B)(3)(e)(iii)(a-h) that AEP calls the "Rule 6" factors.[40] These factors deal with the merits of a utility's proposal for additional electricity. These are the same factors that OPAE Witness Rinebolt identified as "the factors to be considered when determining whether there is a need for the new electric generation facilities."[41] AEP asks the PUCO to confirm that "need" under the electric security plan statute can be triggered based on these factors establishing the reasonableness of an integrated resource plan.[42]

But, AEP and OPAE have focused on the wrong section of the PUCO rules.[43] When a utility seeks to charge customers for monopoly megawatts, it must provide information in its long term forecast report on the "Need for additional electricity

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[39] AEP Brief at 1; OPAE Brief at 5.

[40] AEP Brief at 12 (referring to factors erroneously as 4901:5-5-06(B)(3)(d)(iii)).

[41] OPAE Ex. 1 at 4-5, 6.

[42] AEP Brief at 18.

[43] *Contra* Environmentals' Brief at 5-6, citing to Ohio Adm. Code 4901:5-5-06*(B)(2),* as the "guidance for what factors should be including for consideration when crafting a resource plan and determining the need for generation as required by R.C. 4928.143(B)(2)(c)."

resource options." Ohio Adm. Code 4901:5-5-06 *(B)(2) (not (B)(3)(e)(iii))* is the forecasting rule that requires a utility to discuss "need" factors. Under 4901:5-5-06*(B)(2),* the utility must address the need for additional power, describing "the procedure followed in determining the need for additional electricity resource options. All major factors shall be discussed, including but not limited to" factors (a) through)(j).

Factors (a) through (j) of 4901:5-5-06*(B)(2)* are largely consistent with how OCC (and those opposing the monopoly megawatts) has objectively defined need, from a traditional resource planning perspective: customer demand, supply, and a reserve margin. Factors (a)-(j) include the power requirements of customers ("system load profile"); the maintenance requirements of the plants providing power; the characteristics of the power supply, including availability; uncertainty of demand and supply forecasts; the uncertainty with respect to the cost, availability, in-service dates and performance of the power supply; lead times for construction of the power source; power interchange requirements; demand and price elasticity; regulatory climate; and reliability criteria (reserve margin).

In contrast, the subsection of the PUCO rules that AEP and OPAE rely upon does not address "the need for additional electricity options." Rather 4901:5-5-06*(B)(3)(e)(iii)* addresses "the reasonableness of the resource plan." The reasonableness of the resource plan is assessed however, *only after a need for additional power resources is identified.* Staff Witness Benedict described how these rules work together as a three-step process:

> The first step in the process is to examine whether the Company's energy and demand forecasts are reasonable. Once this is established, Staff then seeks to determine whether sufficient resources exist, including an adequate reserve margin, to meet the projected load. *If it is determined that there are insufficient resources to satisfy the projected load, then Staff would consider*

> *the extent to which new resources must be attained to re-establish resource adequacy and what type of resources would be best suited to meet that need, subject to a number of important considerations.* Staff would then make a recommendation to the Commission, along with any interested parties in the context of a forecast hearing, to allow the Company to source such resources and recover from ratepayers the associated costs, subject to the same prudency and accuracy review that Staff would apply to any utility investment that seeks recovery from ratepayers.[44]

In this case, Staff undertook step one and determined that AEP's energy and demand forecast were reasonable.[45] The PUCO Staff proceeded to step two to examine whether sufficient resources exist, including an adequate reserve margin to meet the projected needs of customers.[46] The PUCO Staff concluded that "supply is sufficient to meet the needs of Ohio Power's customers and to ensure that resource adequacy is maintained."[47] The PUCO Staff did not proceed to step three, where it would have assessed the *(B)(3)(iii)* factors. Instead the PUCO Staff found that "[g]iven the fact that our finding is of no need, Staff does not believe it is necessary at this time to evaluate the specific merits of the Company's proposed facilities." [48]

The contrary approach urged by AEP and OPAE puts the cart before the horse, as OCA aptly notes in its brief.[49] There is no basis to consider the factors of rule *(B)(3)(e)(iii)* (related to options for additional power) because there is no demonstrated need for additional power.[50] The PUCO's inquiry is at an end. The PUCO should

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[44] Staff Ex. 2 at 3 (emphasis added).

[45] Staff Ex. 2 at 4-5 (Benedict).

[46] Staff Ex. 2 at 7 (Benedict).

[47] *Id.* at 8.

[48] *Id.*

[49] OCA Brief at 10.

[50] *Id.*

decline AEP's request to confirm that "need" under the electric security plan statute can be triggered based on the *(B)(3)(e)(iii)* factors.

To their credit, the Environmental advocates at least focus on the right section of the forecasting rules, section 4901:5-5-06*(B)(2)* as setting forth the need factors for additional generation under R.C. 4928.143(B)(2)(c). But they err in a different way, by claiming that the factors under 4901:5-5-06*(B)(2)* provide guidance but are not an exhaustive list of relevant factors that must be considered.[51] The Environmental advocates point to the language within the rule that states "All major factors shall be discussed, including but not limited to***"[52] The Environmental advocates read "including but not limited to" as carte blanche authority to allow a "host of relevant factors" to be considered as "need" factors.[53]

But the Environmental advocates' interpretation of the rule would render the rule almost meaningless, as any factor could be considered as part of need –even the factors listed as part of *(B)(3)(e)(iii).* Interpreting (B)(2) as the equivalent of (B*)(3)(e)(iii)* makes (B)(2) redundant. As explained above, (B)(2) significantly differs from (B)(3)(e)(iii) in purpose and in scope. It would be a mistake for the PUCO to adopt the Environmental advocates' interpretation of PUCO rules.

[51] Environmentals' Brief at 5-6.

[52] *Id.* at 5-6.

[53] *Id.* at 7.

C. AEP's reliance on R.C. 4935.04, a general forecasting statute, that was enacted by the General Assembly in 1977 (long before the 2008 Energy Law) is unlawful. That law must yield to the later enacted, specific provision of law (R.C. 4928.143(B)(2)(c)), allowing limited power plants to be built by the utility as a safety valve in the event of market failure.

AEP and the Environmental advocates point to various forecasting statutes as evidence that "need" under R.C. 4928.143(B)(2)(c) should not be narrowly defined and means more than resource adequacy.[54] For example, AEP notes that under one of the forecasting statutes (4935.04(E)(2)) the scope of the forecast hearings is wide open: "The hearing shall include, but not be limited to, a review of" customers' power needs ("projected loads and energy requirements") and the utility's power supplies to meet those needs ("estimated installed capacity and supplies to meet the projected load"). The Environmental advocates stress another forecasting statute, R.C. 4935.01, which establishes the "energy supply and demand forecasting duties" of the PUCO.[55] The Environmental advocates, zero in on subsection (A)(1) of R.C. 4935.01, and note that it requires the PUCO ("the commission shall") to "reasonably balance requirements of the state and regional development, protection of public health and safety, preservation of environmental quality, maintenance of a sound economy, and conservation of energy and material resources."[56]

While AEP and the Environmental advocates would have the PUCO construe these forecasting statutes as controlling the definition of need in R.C. 4928.143(B)(2)(c),

[54] AEP Brief at 13; Environmentals' Brief at 6-10.

[55] Environmentals' Brief at 6-7.

doing so would be inconsistent with Ohio rules of statutory construction. Under Ohio rules of statutory construction, a special statutory provision in law constitutes an exception to a general statute covering other subjects as well. [57] And, when two sections of Ohio law are inconsistent with each other, the later enacted statute prevails.[58]

In this regard, Chapter 4935 of the Revised Code dates back to 1977, and was amended at various times, with the latest amendments being made in 1985. At that time electric utilities were vertically integrated and responsible for customers' generation needs, unlike the deregulated structure today. The provisions of Chapter 4935 generally address energy data that the PUCO is to collect, develop, and review. In contrast, R.C. 4928.143(B)(2)(c), was enacted as part of much later legislation, the 2008 Energy law. Additionally, R.C. 4928.143(B)(2)(c) is limited in scope. It is directed to a utility's application (within an electric security plan) to establish a non-bypassable generation charge to its customers for owning or operating power plants.

R.C. 4928.143(B)(2)(c) is a special statutory provision relating solely to the establishment of a non-bypassable generation charge and it was enacted subsequent to the general section of Ohio law addressing energy data. Under the rules of statutory construction in Ohio, R.C. 4928.143(B)(2)(c) must prevail over the general requirements of Chapter 4935, Revised Code.

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[57] *See, e.g.,* (*State, ex rel. Steller et al., Trustees, v. Zangerle, Aud.,* 100 Ohio St. 414*,* and paragraph one of the syllabus in S*tate, ex rel. Elliott Co., v. Connar*, Supt., 123 Ohio St. 310, approved and followed.). *See also*, Rule of Statutory Construction 1.51 (if there is a conflict between a special and general provision that is irreconcilable the special provision prevails unless the general provision is later adopted and the manifest intent is that the general provision prevail.

[58] *See, e.g*., *State ex rel. Board of Education v. Schumann, 7 Ohio St. 2d 41, 218 N.E.2d 1890, 43-44. See also*, Rule of Statutory Construction 1.52 (if statutes enacted at different times are irreconcilable, the statute later in date prevails).

And yet, under AEP and the Environmental advocates' approach, the PUCO would be using earlier, general provisions of Chapter 4935, to define "need" as expressed in a very specific, later enacted statute. The wide open interpretation of need under Chapter 4935 cannot be reconciled with the need addressed in R.C. 4928.143(B)(2)(c) that comes into play only as a safety valve. The PUCO should reject this approach as inconsistent with the rules of statutory construction.

Moreover, construing R.C. 4935, in the manner suggested by AEP and the Environmental advocates, makes little sense especially given the very limited role the PUCO has in safeguarding reliability of power to Ohioans, since the passage of S.B. 221 (and its predecessor, S.B. 3). When Ohio decided to deregulate, Ohio's statutory scheme recognized that PJM would take over determinations of resource adequacy in the region.[59]

The General Assembly, did however, recognize that the PUCO should have the power to approve, in a very limited sense, monopoly megawatts to be owned or operated by Ohio utilities. This was to be a safety valve for customers in the event of market failure. The PUCO's limited ability to create monopoly megawatts as a safety valve for customers is much different than its earlier wide-ranging ability to approve power plants construction to safeguard reliable electric service to all Ohioans. To accept AEP and the Environmental advocates' arguments, one would have to disregard the vast changes that have occurred in Ohio's regulatory landscape. It would be unlawful for the PUCO to rely

[59] *See, e.g.*, Staff Ex. 2 at 7 (Staff Witness Benedict testifying that PJM is responsible for ensuring resource adequacy across its footprint, including Ohio Power and all of the state of Ohio); IGS Ex. 11 at 14 (Witness White testifying that as Ohio is a competitive generation state, the reliability needs of electric generation have been turned over to competitive markets).

on various forecasting statutes as evidence that "need" is established under R.C. 4928.143(B)(2)(c).

D. Construing the law (R.C. 4928.143(B)(2)(c)) as a safety valve is consistent with the deregulatory theme of the 2008 Energy law and does not render the statute meaningless.

As OCC noted in its initial brief, the PUCO has recognized that R.C. 4928.143(B)(2)(c) acts as a safety net for consumers. It operates in the event that market-based solutions do not emerge for this state's generation needs.[60]

But AEP and its supporters criticize OCC's definition of need as "constrained,"[61] "limited and narrow"[62] and restrictive.[63] AEP and OEG claim that OCC (and others) interpret need under R.C. 4928.143(B)(2)(c) in such a way as to render the statute meaningless,[64] which is inconsistent with the rules of statutory construction. According to AEP, under the safety valve approach urged by OCC, it will be impossible to demonstrate that customers need power unless there is a collapse of PJM markets.[65] These exaggerated claims are easily addressed.

AEP is correct in its assertion that the safety valve will only be exercised when the market has failed. But the key to that is defining market failure. Market failure under the statute means more than a collapse of the PJM markets.

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[60] OCC Ex. 18 at 26 (Dr. Lesser) (describing the law as a market "safety valve;" s*ee also, In the Matter of the Application of Columbus S. Power Co*., Case No. 11-346-EL-SSO, Opinion and Order at 39-40 (Dec. 14, 2011) (describing the generation resource rider as a "lifeline").

[61] AEP Brief at 14.

[62] Environmentals' Brief at 7.

[63] OEG Brief at 2-3.

[64] AEP Brief at 14; OEG Brief at 3.

[65] AEP Brief at 14-15.

For instance, assume (contrary to the record in this case) that AEP's portfolio of renewable generation is not sufficient to meet current renewable mandates (or mandates as projected). AEP puts out a request for proposal seeking renewables to meet its mandates and gets no response. Assuming that the request for proposal was reasonable and did not impose onerous requirements that no developer could meet, then there would be evidence of a lack of a functioning market for renewables. AEP could then apply to own or operate renewable power plants. In other words, the statute's safety valve can be exercised if a utility can demonstrate that it cannot meet its renewable mandate using market based approaches, such as a request for proposal. This scenario can happen even if the PJM market is functioning perfectly.

In the instant proceeding, however, AEP itself admits it has sufficient renewable generation to meet its renewable portfolio mandate and there is no statutory need for renewable generation. AEP Ex. 3 at 13 (Allen). AEP has not provided any evidence that the PJM market is not working in any respect. AEP also admits that it has sufficient overall generating capacity to meet its reliability requirement. AEP Ex. 3 at 8 (Allen); AEP Ex. 2 at 3 ("PJM wholesale markets are adequately supplying capacity and energy to the AEP Ohio load zone."). The PUCO has no choice but to comply with the law and find that AEP has not established a need for the projects.

E. The PUCO should rely upon its *Turning Point* decision for construing the law (R.C. 4928.143(B)(2)(c)).

OCC explained in its Initial Brief that the PUCO's decision in the *Turning Point* case is precedent that the PUCO should follow when determining need.[66] Review of how

[66] OCC Initial Brief at 13.

the PUCO construed the statute in the *Turning Point* case is also consistent with Ohio's rules of statutory construction, R.C. 1.49.[67] Under that provision, if a statute is ambiguous, the court should look to, inter alia, "the administrative construction of the statute."

In particular, the PUCO's *Turning Point* decision found that "need" under R.C. 4928.143(B)(2)(c) does not equate to customer wants, jobs, or economics. Rather the PUCO determined need was about power supply, customers' demand, and meeting renewable energy requirements under R.C. 4928.64.[68] And the PUCO reiterated its determination that it would first look to the market for any power needs and that new projects would only be authorized when customers' needs could not be met in the market.[69] The PUCO should respect its own precedent in its decisions "to assure the predictability which is essential in all areas of law, including administrative law."[70]

But AEP and others pay no heed to the PUCO's prior pronouncement on "need" because it is contrary to their expansive definition of need. Both AEP and OEG allege that the *Turning Point* case can be distinguished from this case.[71] OEG argues that the facts and rationale are different in this case because AEP has presented evidence on the

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[67] OEG cites to this rule of statutory construction as applicable but ignores how the PUCO has construed the statute. OEG Brief at 4.

[68] *In the Matter of the 2010 Long Term Forecast Report of the Ohio Power Company*, Case No. 10-501-EL-FOR., Opinion and Order (Jan. 9, 2013).

[69] *Id.* at 26 (referring back to an earlier PUCO decision in AEP's second electric security plan case, Case No.11-346-EL-SSO).

[70] *See*, *e.g., In re Duke Energy Ohio, Inc.*, 150 Ohio St.3d 437, 443 (2017).

[71] AEP Brief at 19; OEG Brief at 10.

needs of customers (when it did not in the prior proceeding).[72] AEP comes up with a much more sophisticated multi-pronged approach: First, it claims that the PUCO's reliance (in the *Turning Point* case) on an earlier PUCO Order (the Dec. 14, 2011 Order in Case No. 11-346-EL-SSO) is "questionable" because that order was "revoked by the Commission through its Feb. 23, 2012 Entry on Rehearing."[73] Second, AEP claims that the PUCO findings in *Turning Point* regarding market conditions are not binding as to the outcome in this case about market failure.[74] Third, it alleges that the *Turning Point* decision "merely represents the policy views of a prior Commission."[75] The PUCO should reject these arguments.

Factual distinctions can be used to distinguish factual findings. But here, OCC is relying upon the legal conclusions of the Commission that it made in defining "need" (i.e. the conclusion that need equals supply, demand, reserve margin, and renewable mandates and need must be met first by the market). Those conclusions are separate from any PUCO factual determination of the market conditions.

AEP's claim that the PUCO relied upon an order that was "revoked" is misleading. Although the PUCO's subsequent Entry on Rehearing did overturn the settlement approved by the PUCO's earlier order, it strains credibility to argue that the PUCO's statutory interpretation of R.C. 4928.143(B)(2) was explicitly (or even implicitly) revoked. The PUCO's December 14, 2011 order provided the PUCO's interpretation of law:

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[72] OEG Brief at 10.

[73] AEP Brief at 19.

[74] *Id.*

[75] *Id.*

> While Section 4928.143(B)(2) . Revised Code provides the Commission with authority to order construction of new generation facilities in Ohio, such new generation or capacity projects will only be authorized when generation needs cannot be met through the competitive market. Therefore, generation projects under the GRR*, or any other surcharge authorized by Section 4928.143(B)(2),* Revised Code, must be based upon a demonstration of need under the integrated resource planning process and be narrowly tailored to advance the policy provisions contained in Section 4928.02 Revised Code, or the statutory mandates contained in Section 4928.64, Revised Code.[76]

The PUCO's statutory interpretation of R.C. 4928.143(B)(2) stands despite any subsequent PUCO Order rejecting the settlement. AEP also conveniently ignores the fact that the PUCO, a few years ago, in a later AEP case, reemphasized that it would "continue to look to the markets as the primary drivers of an adequate supply of energy from any source, including renewable energy."[77]

The issue of market failure is a factual determination that needs to be made on a case by case decision. The important point is that the utility must first show a need for the power and then show market failure before it can charge its customers for monopoly megawatts under Ohio law. It has failed to do that in this case, just as it failed to do so in the *Turning Point* case.[78]

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[76] *In the Matter of the Application of Columbus S. Power Co*., Case No. 11-346-EL-SSO, Opinion and Order at 39-40 (Dec. 14, 2011).

[77] *In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement*, Case No. 14-1693-EL-RDR, Opinion and Order at 82-83 (Mar. 31, 2016).

[78] The PUCO evaluated the market for solar capacity and found that the in-state solar market showed a trend of solar additions since 2009, with no evidence that the trend would not continue. *In the Matter of the 2010 Long Term Forecast Report of the Ohio Power Company*, Case No. 10-501-EL-FOR Opinion and Order at 27.

Also, the *Turning Point* decision can be summarily dismissed as the "policy views of a prior commission." The PUCO's decision in *Turning Point* was based on its interpretation of law, not policy. The PUCO found that AEP failed to demonstrate need for the *Turning Point* project. Any discussion of policy found in that decision was saved for the PUCO's parting advice to AEP, that its finding "does not preclude AEP-Ohio from pursuing the project through other appropriate means, such as a long-term purchase power agreement."[79]

And while OEG claims this parting advice opened the door for this case,[80] such an interpretation makes no sense in that a "long term purchase power agreement" falls under a separate section of the law, R.C. 4928.143(B)(2)*(d)*. AEP has not sought authority for its arrangement under that statutory provision.

F. State policies cannot override R.C. 4928.143(B)(2)(c). Besides, these policies are being advanced through the market, without violating the law.

The parties supporting customer funding of monopoly megawatts direct the PUCO to the state policies contained in R.C. 4928.02.[81] According to OEG, a "comprehensive inquiry" is needed considering these policy objectives.[82] MAREC explains that a finding of need is consistent with the policy objectives contained in various sections of R.C. 4928.02.[83]

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[79] *Id.*

[80] OEG Brief at 10.

[81] MAREC Brief at 10-13; OEG Brief at 5; OPAE 7-8.

[82] OEG Brief at 2.

[83] MAREC Brief at 10.

While the state policies set out in R.C. 4928.02 are important, the Supreme Court of Ohio recently ruled that the relevant provisions of R.C. 4928.02 "do not impose strict conditions on the commission."[84] The Court explained that R.C. 4928.02 merely explains the policy of the state and serves as guidelines for the PUCO in evaluating utility proposals.[85]

Ohio law (R.C. 4928.143(B)(2)(c), on the other hand, imposes strict conditions on the PUCO. Before the PUCO can allow a utility to charge a customer for monopoly megawatts, it must find that the utility has complied with a number of specific conditions. First, the statute constricts the charge to a "non-bypassable" surcharge, meaning that all customers must pay for it. Second, the generating plant must be owned or operated by the utility. Third, the statute requires that the generating facility was sourced through a competitive bid process, a provision meant to achieve least cost for consumers. Fourth, there must be a need for the facility "based on resource planning projections submitted by the electric distribution facility." Fifth, the capacity and energy from the facility must be dedicated to Ohio consumers with the PUCO ensuring that "the benefits derived for any purpose for which the surcharge is established are reserved and made available to those that bear the surcharge."[86] "Otherwise, the commission by order shall disapprove the application."[87]

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[84] *In re Application Seeking Approval of Ohio Power's Proposal to Enter into an Affiliate Power Purchase Agreement*, 2018-Ohio-4698.

[85] *Id.* at ¶49 (citations omitted).

[86] R.C. 4928.143(C)(1).

[87] *Id.*

While the general policy guidelines of R.C. 4928.02 can assist the PUCO in evaluating AEP's proposal, they cannot override these specific provisions of R.C. 4928.143(B)(2)(c). Yet, that is just what OEG seems to be urging. The PUCO should reject OEG's suggestion that it must conduct a comprehensive inquiry into these policies rather than focus on the mandates of R.C. 4928.143(B)(2)(c).

Additionally, the state policies that the parties tout are being advanced by market megawatts, consistent with R.C. 4928.143(B)(2)(c). That statute relies on the competitive generation market to meet customer needs for power, without the heavy hand of government. By relying on the market to meet customers' needs for power, the PUCO can advance numerous policy objectives, without violating R.C. 4928.143(B)(2)(c).

Reliance on market megawatts, instead of monopoly megawatts, provides customers with adequate reliable safe efficient, non-discriminatory and reasonably priced electric service, consistent with R.C. 4928.02(A). Retail electric service provided by the competitive power market provides consumers with service options to meet their respective needs, fulfilling the policy of R.C. 4928.02(B). The market has also produced a diversity of supply (including a supply of renewable power)[88] for customers and has given customers choices over their supply, consistent with R.C. 4928.02(C). Innovation and market access for cost-effective service is being facilitated, through the competitive generation market, consistent with R.C. 4928.02(D). By relying on market megawatts and not monopoly megawatts, the PUCO can avoid anti-competitive subsidies that can harm the market, effectuating the policy of R.C. 4928.02(H).[89] As evidenced by the numerous

[88] *See, e.g.,* OCC Ex. 25 at 6 (Dr. Sioshansi); Staff Ex. 1 at 10.

[89] *See* OCC Ex. 18 at 37; IGS Ex. 9 at 4.

marketer' offers of renewable power and the development of in-state and wind generation[90] the market is providing appropriate incentives to technologies that can adapt to environmental mandates, furthering R.C. 4928.02(J). And by relying on market megawatts, instead of monopoly megawatts, the state's effectiveness in the global economy (a state policy under R.C. 4928.02(N)) is being facilitated, not impeded.[91]

IV. UNDER OHIO LAW THE GENERATION NEEDS OF CUSTOMERS ARE BEING MET THROUGH THE COMPETITIVE MARKET; THEREFORE, AEP'S PROPOSAL SHOULD BE REJECTED AS UNLAWFUL.

The PUCO has repeatedly ruled that before a utility can seek customer funding of monopoly megawatts under Ohio law, it must first look to the market to build the needed capacity.[92] AEP concedes this, half-heartedly, when it states the "Commission has indicated that market failures *may indeed be relevant* to its consideration."[93] Under Ohio law, only if need has been determined (it has not) and the market has failed to meet the

[90] OCC Ex. 18 at 38; IGS Ex. 11 at 11; IEU Ex. 1 at 5; Ex. KMM-3.

[91] *See* OCC Ex. 25 at 13; OCA Ex. 2 at 26 (witnesses testifying that competitors that lack the guaranteed captive customer funding that AEP would be afforded under its proposal may decide not to build renewables in the state); OCC Ex. 18 at 37 (Dr. Lesser testifying that the renewable energy projects proposed by AEP are likely to crowd out competitive in-state renewable energy projects owned and operated by other suppliers not receiving subsidies); Direct Energy Ex. 2 at 22 (Mr. Lacey testifying that market prices for renewables could decrease, causing developers to leave the state rather than accept a below-market customers' subsidized price under AEP's proposal).

[92] *In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement*, Case No. 14-1693-EL-RDR, Opinion and Order at 82-83 (Mar. 31, 2016); *In the Matter of the Long-Term Forecast Report of Ohio Power Company and Related Matters*, Case No. 10-501-EL-FOR, Opinion and Order at 26 (Jan. 9, 2013); *In the Matter of the Application of Columbus S. Power Co.*, Case No. 11-346-EL-SSO, Opinion and Order at 38 (Dec. 14, 2011).

[93] AEP Brief at 61 (emphasis added).

generation needs of customers (it has not), can the utility own or operate monopoly megawatts.

Despite these clear rulings from the PUCO, AEP and its supporters have failed to demonstrate that customers' renewable generation needs (or wants) cannot be met in the competitive market. Instead the overwhelming evidence showed just the opposite: The generation needs of customers for renewables are being reliably met through the competitive market. One need only look to the PUCO's own "Apples to Apples" data to see there are plenty of offers allowing customers to choose renewable energy.[94]

AEP and its supporters spend much time and effort trying to prove that there has been a "market failure" that would allow AEP to go forward with monopoly megawatts.[95] AEP and others allege market failures coming from all directions: from the PJM market structure,[96] from so-called "limited" marketer' offerings in Ohio,[97] and from the alleged scarcity of utility scale solar resources in Ohio.[98] But there are fundamental problems with this approach. AEP and its supporters have mistakenly equated lack of customer demand with market failure. More importantly, the parties' market failure theory exposes an underlying contradiction in AEP's case that cannot be explained away: That is if AEP and its supporters believe that customers are clamoring for in-state, utility-scale solar, and are willing to pay for it (per their reading of the Navigant survey), then why force

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[94] *See, e.g.*, OCC Ex. 25 at 15-16; PUCO Staff Ex. 1 at 10.

[95] AEP Brief at 60-78; Environmentals' Brief at 21-28; OPAE Brief at 16, 17, 20-21.

[96] AEP Brief at 61,62; OPAE Brief at 34; Environmentals' Brief at 24-25.

[97] AEP Brief at 70; Environmentals' Brief at 22-23; OPAE Brief at 30.

[98] AEP Brief at 70-71.

customers to pay for the solar through a mandatory, non-bypassable charge? AEP has yet to provide that answer.

A. Under Ohio law, the fact that there may be less solar development in Ohio or in PJM than in other areas does not indicate a market failure.

AEP and its supporters have created their own definitions of market failures. For instance, AEP and others make much of the fact that solar power development in Ohio is less than in other neighboring states.[99] AEP and its supporters also point out that wind development in PJM lags other regions in the country.[100] They allege these facts show that the renewable market in Ohio and the PJM region has failed.

The fact that Ohio has less wind or solar generation than in other regions makes perfect sense. Ohio is not as windy as other regions (West Texas, Kansas, Nebraska, the Dakotas, etc.,) and is less sunny than other regions (California, Arizona, Florida). This is just basic economics: wind and solar resources are developed where it is most economical to do so.

For instance, oranges are grown in the "sunshine state" (Florida), not in Ohio. The absence of orange groves in Ohio does not point to a market failure. Rather it reflects that, due to Ohio's climate, it is not cost effective to grow oranges in Ohio. Under the concept of comparative advantage, as explained by Dr. Lesser, rather than being self-sufficient in everything (including oranges), it makes more economic sense to specialize in what we do most efficiently.[101] Solar and wind generation in Ohio will develop more

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[99] *See, e.g.*, AEP Ex. 3 at 10.

[100] *See, e.g.*, AEP Brief at 69 (relying on the testimony of Sierra Club witness Goggins).

[101] OCC Ex. 18 at 33.

fully if and when it is economical to do so. In the meantime, there are plenty of opportunities for Ohioans to purchase renewables through the numerous marketer offerings, even if those are short-term, non-Ohio, non-utility scale renewables.

Real market failure occurs when the allocation of goods and services is not economically efficient. AEP and others have produced no evidence that the market is not economically efficient. Instead they cling to an erroneous definition of market failure that suits their needs. The PUCO should not be fooled by AEP's simplistic but misguided approach.

B. Under Ohio law, PJM's market design is not evidence of a market failure.

AEP is quick to point the finger at PJM, claiming that PJM has failed to promote renewable resources.[102] AEP characterizes PJM as being indifferent to the development of renewables; the Environmental advocates go further to claim that PJM discriminates against renewables.[103] In this regard, the Environmental advocates claim that PJM's capacity market depresses energy market prices.[104] (That is wrong and contradicted by one of its allies in this proceeding, OPAE.)[105] AEP, relying upon Sierra Club witness Goggins, claims that the PJM wholesale market is falling short of "optimal levels of

[102] AEP Brief at 61-62; OPAE Brief at 13, 34.

[103] Environmentals' Brief at 24. Discrimination is a misnomer because PJM subsidizes wind and solar by providing them capacity credits despite the inherent intermittent nature of the resources.

[104] Environmentals' Brief at 25.

[105] *See* OPAE Brief at 11; (it is the renewables themselves that are depressing the energy market prices).

renewables."[106] But these rants against PJM and the way PJM works should fall on deaf ears. They do not show the market is failing to provide Ohioans with renewable options.

Ohio requires its electric utilities to belong to a regional transmission authority like PJM.[107] The reason for this is that membership in PJM provides those utilities' customers with the greatest level of reliability at the lowest possible cost. The capacity market is designed to promote sufficient generation to meet mandatory reliability standards developed by NERC and to provide the "missing money" stemming from price caps in the PJM energy market.

Membership in PJM has worked to bring customers reliable service at reasonable prices. The fact that PJM does not require individual capacity requirements by resource is not evidence of a market failure. PJM's purpose is not to promote any individual resource over another. Its focus (and appropriately so) is on cost and reliability.

And, even if there was a problem with the PJM market design as it relates to renewables (there is not), the problem is not the PUCO's to fix. That responsibility lies with FERC and is outside the PUCO's jurisdiction. Parties are free to raise these issues with FERC, through the filing of comments and or complaints.

AEP also argues that PJM does not consider Ohio specific factors, and that the PUCO should.[108] AEP identifies those specific factors as fuel diversity, the net importer status of Ohio, the impact of specific resources on Ohio's economy, and the financial

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[106] AEP Brief at 69.

[107] R.C. 4928.12.

[108] AEP Brief at 62.

hedging benefits renewables can provide.[109] But these weak and unfounded arguments should also fail.

As explained in OCC's initial brief, the fact that Ohio imports electricity is meaningless.[110] Dr. Lesser testified that energy independence is not a reasonable or sound basis for developing in-state power plants through non-bypassable charges to AEP customers.[111] The notion of energy independence has no connection to Ohio law and is not tethered to the 21st century reality of the regional market of which Ohio is a part.

Additionally, AEP can obtain the same economic benefits they claim from the monopoly megawatts without the need for a long-term purchase power agreement where all the risks are born by AEP's captive customers. A major risk to captive customers is the financial risk associated with locking into a long term, 20-year purchase power agreement. AEP could develop the projects on its own, through its existing subsidiaries, without resorting to long term power purchase agreements subsidized by captive customers.[112] Such an approach would have AEP putting its money where its mouth is: According to AEP's survey, 94% of AEP residential non-PIPP customers have a pent up demand for renewables and are willing to pay for those.[113]

Dr. Lesser testified that AEP has failed to demonstrate that the monopoly megawatts will provide financial hedging benefits to AEP customers.[114] AEP provided no

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[109] *Id.*

[110] OCC Initial Brief at 34-36.

[111] OCC Ex. 18 at 32-33.

[112] OCC Ex. 18 at 90-91.

[113] AEP Brief at 3-4.

[114] OCC Ex. 18 at 70-75.

detailed explanation of how the solar projects would hedge PJM market prices and did not provide estimates of the hedging benefits to AEP customers.[115] In fact, Dr. Lesser testified that contracts would be unlikely to provide any hedging benefits and instead may impose higher costs on customers related to the expected inherently intermittent output from the solar plants.[116] Dr. Lesser testified that, given the magnitude of the projects, it is not credible to believe the projects would measurably reduce wholesale price volatility in PJM.[117]

The project's financing is a Wall Street-style scheme for a financial hedge on the solar plants; the project is not a more straightforward deal about AEP building power plants and selling power to Ohioans. It's proposing to do neither.

Finally, the unsubstantiated claim that the PJM market is falling short of "optimal level of renewables" should be disregarded. While one might argue that the optimal level of renewables is what customers want, even that amount of renewables is unknown, making it impossible to determine that there is a shortfall of renewables in the PJM market. Indeed, although AEP alleges that there is an undersupply of renewable energy for Ohioans (based on its fundamentally flawed survey), it conceded at the hearing that it "has not calculated the level of undersupply."[118] Further, it gets lost in the AEP rhetoric

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[115] *Id.*

[116] *Id.*

[117] OCC Ex. 18 at 71; *see also In the matter of the Application of Ohio Power Company for Authority to Establish a Standard Offer*, Case No. 13-2385-EL-SSO, Opinion and Order at 25 (Feb. 25, 2015)(finding that the OVEC purchase power agreement would have little benefit when serving as a hedge against market volatility).

[118] *See* OCC Ex. 1, 2.

that the proposed solar plants would not produce solar energy for Ohioans; rather, the plants' output would be sold into the PJM multi-state regional market.

C. Under Ohio law, current marketer offerings of renewable energy are not evidence of market failure.

AEP and the Environmental advocates allege that the numerous marketers' offers of renewable energy are "limited" and no substitute for utility scale renewable projects.[119] In this respect they claim that the marketer offerings in Ohio are not for in-state renewable energy and the contracts are short term.[120] AEP also argues that the majority of its customers " do not access these offerings, despite the results of the survey suggesting customers are broadly interested and willing to pay. [121] In contrast, AEP argues that its proposal for a twenty-year contract will provide customers price stability and certainty[122] (whether customers want it or not).

These arguments are also based on the faulty assumption about what constitutes a market failure. The fact that nobody produces certain goods and services is not evidence of a market failure. The absence of private goods and services simply means there is a lack of demand. The PUCO should view the lack of in-state renewables being offered, and the lack of long-term contracts for renewables as evidence that there is little demand for them. Another way of looking at it is to say the customer demand for renewables is already being met by the plentiful marketer offerings that have nothing to do with in-state, utility scale solar projects with 20-year contract terms.

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[119] AEP Brief at 70; Environmentals' Brief at 22.

[120] Environmentals' Brief at 23.

[121] AEO Brief at 70.

[122] *Id.*

And the PUCO should also look at AEP customer behavior in not accessing the offers as a signal that some customers do not want to engage in shopping for their electricity and have chosen not to pursue renewable resources to meet their energy needs. The behavior of customers, in not accessing the renewable offers, speak louder than any words the utility is relying upon in its deeply flawed customer survey.[123]

If AEP truly believes the results of its survey, it should be rushing out the door to develop lots of in-state, utility-scale wind and solar projects, especially if these projects are as cost competitive as parties claim in this case.[124] The fact that AEP has not chosen to do so, but has insisted upon forcing all of its customers to pay for these projects, speaks volumes.

D. Under Ohio law, the number of utility-scale solar projects is not evidence of market failure.

AEP and its supporters allege that there are limited in-state utility scale solar projects in Ohio.[125] AEP believes that this means the market has failed to meet customer "needs." But aside from the anecdotal cases of large corporations who have voluntarily undertaken large solar projects for their electricity needs, there is little evidence that AEP customers (especially residential customers) are demanding in-state, utility-scale (large) solar projects. Rather the market in Ohio reflects that if there is a demand for solar

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[123] *See, e.g.,* OCC Ex. 18 at 89 (the number of customers actually purchasing renewable energy is an obvious and more accurate way to gauge customer demand); *accord,* OCC Ex. 24 at 12 (OSU Professor Dormady testifying that the Navigant study suffered from hypothetical bias).

[124] *See, e.g.,* OPAE Ex. 1 at 6 (Rinebolt testifying that solar is cost-competitive in the marketplace); Tr. VIII at 2203-2204 (Burcat).

[125] AEP Brief at 74-76. *But see* IEU Ex. 1 at KMM-6 (identifying eight utility scale solar projects, with a combined capacity of 914 MW, that have been proposed since 2017). .

power, it is a demand for short term, renewables offerings by marketers. Otherwise, the renewable offerings by marketers in Ohio would be not exist.

Again, the lack of current in-state utility scale projects is not evidence of market failure. It is evidence that there is a lack of demand for such projects, outside of the large corporations who pursue such projects voluntarily, without captive customer funding.[126] If there truly is a demand for in-state, utility-scale renewable projects, as AEP alleges is shown through its Navigant survey, then the market will respond by producing the projects, provided they can be efficiently produced. And AEP and its supporters are quick to assert that these projects can be efficiently produced. According to several of the monopoly megawatt advocates, solar is cost competitive, and becoming more so day by day.[127]

It follows then, in accepting AEP's arguments, that there would be no need to force customers to fund in-state, utility-scale projects through a purchase power agreement. This illuminates the fundamental flaw in AEP's case. Why do we need to subsidize (through a mandatory purchase power agreement) in-state, utility-scale renewable energy if customers are demanding this product and the product can be efficiently produced? We have yet to hear a response to this question from AEP or any of the other monopoly megawatt advocates.

E. Claims that AEP's monopoly megawatts are competitively neutral are false.

Under AEP's plan renewable energy resources will be developed outside the competitive market, with captive customers bearing the financial and operational risk of

[126] *See, e.g.*, OCC Exs. 21, 22, and 23.

[127] *See, e.g.,* OPAE Ex. 1 at 6; Tr. VIII at 2203-2204 (Burcat).

these solar projects. That's a subsidy. OCC Ex. 18 at 37. It's an anti-competitive subsidy that conflicts with the state policy that seeks to avoid (not create) such above-market customer charges. *See* R.C. 4928.02(H); IGS Ex. 9 at 4 (Witness Rever testifying that AEP's proposal would provide special compensation that is not available to competitive solar developers in Ohio and thus is an anti-competitive subsidy). Unsubsidized competitors will be at a competitive disadvantage and will be less likely to develop (make investment in) renewable generation in Ohio. *Id.*; OCC Ex. 25 at 12-13 (Dr. Sioshansi); IGS Ex. 12 at 3.

AEP, however, claims that its proposal will not eliminate existing market options.[128] AEP also alleges that its proposal for monopoly megawatts is "competitively neutral with no undercutting of alternatives."[129] OPAE similarly argues that a fixed renewable price that is "market competitive" does not constitute a subsidy.[130] These claims are unsubstantiated. Worse yet, they are not true.

AEP gets to allocate all of the financial risk of developing and operating the solar project to customers. This is contrary to the primary tenet of Ohio restructuring law that the risks and rewards of owning and operating power plants are transferred away from retail customers, with merchant generators (who can effectively manage the risks) assuming such risks.[131] Other private developers do not have the luxury of developing a risk-free solar project, guaranteed by utility customers. AEP is requesting that the PUCO

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[128] AEP Brief at 77.

[129] AEP Brief at 78.

[130] OPAE Brief at 33.

[131] OCC Ex. 18 at 14 (Dr. Lesser).

provide it, and it alone, with an anti-competitive subsidy. This will harm the development of renewable generation in the state in the long-run, because other developers will not build in Ohio unless they get subsidies too.[132] The PUCO should avoid harming the competitive market that customers depend upon for innovation and more affordable electric prices.

OPAE's comments reflect a misunderstanding of the market and are unsubstantiated. A fixed renewable price that is "market competitive" but subsidized still is anti-competitive. Other market participants are not getting the guarantees that AEP would get through its monopoly megawatt approach. OPAE is also defining the product market incorrectly. The correct product market is renewable generation in Ohio, not the entire PJM wholesale market. Finally, OPAE fails to understand that these monopoly megawatts are the toe in the water. If this project is approved, many more uneconomic monopoly megawatts will likely follow.

F. Under Ohio law, customers will not be left behind if AEP's monopoly megawatts are rejected.

AEP and the monopoly megawatts advocates want the PUCO to believe that if these solar projects are not approved, there will be customers who want solar energy, but will be "left behind."[133] AEP argues that municipal aggregation and distributed generation options do not fill the need for in-state, utility-scale renewable generation.[134] In a similar vein, OPAE argues that low income customers are not likely to be able to add

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[132] *See, e.g.,* OCC Initial Brief at 37-39.

[133] AEP Brief at 70-71.

[134] AEP Brief at 70-71, 77.

solar panels on their roof; therefore, utility scale solar promotes equity among customer classes.[135] These scare tactics should be disregarded.

While all customers at all times cannot take advantage of all alternatives which would rely on solar power (aggregation, distributed generation, solar panels), that is beside the point. Customers can choose to obtain renewable energy through the numerous marketer offerings set out in the PUCO's Apples to Apples websites. There is no inequity there.

And, if the PUCO approves a voluntary green pricing tariff, as AEP proposes, this is a further way for customers to exercise a choice for renewable energy. AEP Ohio Witness Williams testified that the green tariff offering "will provide all customer classes the opportunity to purchase RECs to cover some or all of their generation supply. Customers can meet sustainability goals or personal preference with renewable energy resources, regardless of whether a customer purchases generation service from the SSO or from a retail energy marketer."[136] The green pricing tariff is a reasonable way to offer all customers an opportunity to purchase green energy resources consistent with their own personal and corporate preferences.[137] No customer will be left behind if the PUCO approves the voluntary green pricing tariff proposed by AEP.

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[135] OPAE Ex. 1 at 10-11.

[136] OCC Ex. 18 at 92 (emphasis added).

[137] *Id.*

V. IT WOULD BE UNLAWFUL FOR THE PUCO TO APPROVE AEP'S PROPOSED DEFINITION OF CUSTOMER NEED.

A. The alleged total customer benefits of $173 million do not create a need for AEP's proposed monopoly megawatts.

As part of AEP's definition of need, AEP alleges that, among other things, the renewable energy projects will benefit AEP's customers by producing energy cost savings for AEP Ohio customers. [138] AEP, however, will not guarantee any of these costs savings or offer to cap rates to customers for the power produced by the solar facilities.[139] And even if AEP was correct (it's not) that the economics of the projects should be considered as part of need, AEP has failed to convincingly demonstrate that customers will receive the economic benefits it alleges from its proposal.

1. AEP's PJM impact analysis showing $31 Million of savings for customers is overstated and not reliable.

Based on Kamran Ali's testimony, and that of John Torpey, who relied on Mr. Ali's testimony, AEP asserts that customers would save money under its proposal.[140] The PUCO should note that Mr. Torpey's testimony is based, in large part, on Mr. Ali's testimony. In AEP's own words, Mr. Torpey "interpolated and extrapolated" Mr. Ali's hypothetical benefits associated with the generic Renewable Energy Purchase Agreements.[141] Accordingly, because Mr. Ali's testimony is not reliable, as described below, Mr. Torpey's testimony is *necessarily* unreliable.

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[138] AEP Ex. 14 at 6 (Torpey).

[139] Tr. V at 1424 (Torpey).

[140] *See* AEP's Brief at 46-54.

[141] *See id.* at 48.

Mr. Ali, like every other witness to address the matter, admitted that AEP's proposed project is not necessary to meet consumer demand in the PJM market.[142] In fact, Mr. Ali confirmed that "there is 195,000-megawatt of installed capacity [in PJM] when the demand is only 168,000-megawatt."[143] Accordingly, Mr. Ali did not even address the need for AEP's proposed project based on the supply and demand of electricity. Instead, Mr. Ali used a model to hypothesize about the impact of adding 400 MW of solar and 250 MW of wind resources on locational marginal pricing at the AEP Hub.[144] Based on the results of Mr. Ali's hypothesis, Mr. Torpey "interpolated and extrapolated" that the net present value of the annual energy cost savings for AEP customers would be $31 million.[145]

But Mr. Ali (and, thus, Mr. Torpey) did not model the impact of AEP's proposed generic projects on the cost of ancillary services.[146] Nor did Mr. Ali model the impact of the proposed projects on uplift costs.[147] Mr. Ali made these admissions notwithstanding that he recognized that fast-ramping resources would be needed to provide the energy and capacity when renewable resources, the output from which is more variable than coal or

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[142] *See* Tr. II at 428:10-14.

[143] *See id.* at 427:3-7.

[144] *See* AEP's Brief at 46.

[145] *See id.* at 48. Other parties parroted AEP's arguments. *See, e.g.,* OEG's Brief at 10-15; OPAE's Brief at 3-5. Accordingly, the problems with Mr. Ali's and Mr. Torpey's testimony raised here are equally applicable to the assertions of other parties based on it.

[146] *See* Tr. II at 416:24-417:2.

[147] *See id.* at 417:3-19.

gas-fired generators,[148] are not available.[149] Due to these inadequacies in Mr. Ali's analysis, AEP is unable to refute the fact that its proposal has the potential to increase (not decrease) ancillary services costs – costs associated with accommodating renewable energy's integration into the electric grid – in an amount greater than Mr. Ali's hypothesized reduction in locational marginal prices. Mr. Ali simply did not perform the required analysis to do so.[150]

Neither did Mr. Ali (nor, therefore, Mr. Torpey) account for the impact on transmission costs for the *actual* amount of generation – 900 MW – in AEP's proposal. He acknowledged that adding the proposed new generation could impact the transmission system and require upgrades to the system.[151] But Mr. Ali only considered costs associated with the upgrades necessary for 650 MW of new generation.[152] He "shortchanged" the analysis related to transmission system upgrades, as he acknowledged that AEP is asking for a finding of "need" not for 650 MW, *but 900 MW*.[153] This would understate the costs of AEP's proposal to customers.

Further, Mr. Ali did not consider how, if at all, either new coal-fired or gas-fired generation plants would affect locational marginal prices.[154] The PUCO is left with no

[148] *See id.* at 419:13-20.

[149] *See id.* at 418:20-24.

[150] *See id.* at 420:12-17.

[151] *See id.* at 437:20-23.

[152] *See id.* at 438:21-439:10.

[153] *See id.* at 439:11-13.

[154] *See id.* at 441:7-12.

evidence regarding whether AEP's proposed renewable generation is the best or least-cost alternative to lowering locational marginal prices.

Not only did Mr. Ali *omit* information from his analysis, but crucial information he *included* in it highlights the unreliability of his hypothesis. Mr. Ali used existing renewable generation as a proxy for hypothesizing about the purported benefits of the new renewable generation that that AEP proposes.[155] But at best, the existing renewable generation is 50 to 60 miles away from AEP's proposed project.[156] It could be much further away, as Mr. Ali does not know where they are – or even what county they are in.[157]

Given the acknowledged variability of wind and solar generation's output,[158] this should be a fundamental consideration to the PUCO in evaluating AEP's proposed project. The performance of renewable generation in one part of the state does not necessarily equate to the output of renewable generation in another part of the state. Output from wind facilities on the flat, open spaces of windy Lake Erie is very different than facilities in the hills and valleys of southern Ohio, for example. Mr. Ali's use of existing renewable generation as a proxy for hypothesizing about the purported benefits of the new generation that AEP proposes simply cannot be relied on.

AEP's PJM impact analysis is not reliable. It understates the costs to consumers of AEP's proposal while at the same time overstating the proposal's benefits.

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[155] *See id.* at 439:17-440:7.

[156] *See id.* at 440:10-12.

[157] *See id.* at 440:18-25.

[158] *See id.* at 419:13-20.

2. AEP's Ohio impact analysis showing benefits of $142 million to customers is based on an unreliable fundamental forecast of energy and capacity prices.

Based on Karl Bletzacker's testimony, and that of John Torpey, who relied on Mr. Bletzacker's testimony, AEP asserts that adding 650 MW of generic renewable projects will reduce energy costs relative to the market.[159] The PUCO should note that Mr. Torpey's testimony regarding this is based, in large part, on Mr. Bletzacker's testimony. In AEP's own words, Mr. Torpey "used the August 2018 Long-Term North American Energy Market Forecast sponsored by Company witness Karl Bletzacker for forecasted hourly market energy and capacity prices."[160] Accordingly, because Mr. Bletzacker's testimony is not reliable, as described below, Mr. Torpey's testimony is *necessarily* unreliable.

Mr. Bletzacker's testimony, combined with Mr. Torpey's testimony, asserts that market energy prices will rise relative to the proposed Renewable Energy Purchase Agreement.[161] The more energy prices rise, the more beneficial from AEP's perspective the Renewable Energy Purchase Agreement. Thus, AEP's self-interest in arguing in favor of its proposal is higher energy prices. Not surprisingly, that is exactly what Mr. Bletzacker forecasts and Mr. Torpey relies on.

Mr. Bletzacker's forecasted prices, including for energy and natural gas (an important influence on energy prices), are substantially higher than other market

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[159] *See* AEP's Brief at 49-55.

[160] *See id.* at 50.

[161] *See id.* at 49-50. Other parties parroted AEP's arguments. *See, e.g.,* OEG's Brief at 10-15; OPAE's Brief at 3-5. Accordingly, the problems with Mr. Bletzacker's and Mr. Torpey's testimony raised here are equally applicable to the assertions of other parties based on it.

indicators, such as forward prices.[162] Mr. Bletzacker relied on the Energy Information Administration's 2017 Energy Outlook, released almost two years ago, rather than the Energy Information Administration's 2018 Energy Outlook, released in January 2018.[163] OCC Witness Lesser explained that this resulted in higher natural gas prices in Mr. Bletzacker's forecast, which drove up AEP's overall PJM wholesale electric energy price forecast.[164] In turn, Mr. Lesser explained, "this will tend to overstate the revenues to be received for selling the output of the 400 MW solar projects into the PJM market."[165]

Further, Mr. Bletzacker ignores market realities that are and will drive down energy prices. Mr. Bletzacker agreed that, on a fundamental level, rising energy and capacity prices will increase market entry – new generation would be more inclined to enter the market when prices are rising.[166] Energy, as a commodity, will decline in price as supply increases.[167] Thus, were Mr. Bletzacker's forecast to be taken at face value, the market would react by increasing supply and driving down energy prices.[168] The purported $142 million benefit of the proposed Renewable Energy Purchase Agreement versus market energy prices would vanish.

But new entry increasing energy supply would not occur in isolation. Nor are these fundamental economic principles, acknowledged by Mr. Bletzacker, the only (or

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[162] *See* Tr. III at 786:25-787:4.

[163] OCC Ex. 18 at 43 (Lesser).

[164] *See id.* at 43-44.

[165] *Id.* at 44.

[166] *See* Tr. III at 792:21-793:2.

[167] *See id.* at 794:19-795:2.

[168] *See, e.g.,* OCC Ex. 18 at 56-57 (Lesser).

even predominant) factor placing downward pressure on energy prices over time. Technological advances also have a tendency to drive down energy prices.[169] So would the abundant, relatively low-cost natural gas and continual growth in domestic and global natural gas production.[170] Mr. Bletzacker forecasts increasing energy prices in a hypothetical world when, in the real world, technological advances and increasing production of abundant, low-cost natural gas is forcing prices down. Mr. Bletzacker's hypothesis simply does not match the real world that he himself describes.

Mr. Bletzacker's hypothesis further departs from the real world by including a 5% carbon dioxide "dispatch burden."[171] Mr. Bletzacker assumes a dispatch burden on all existing fossil fuel-fired generating units that escalates five percent per year from $15 per ton in 2028.[172] This makes the purported benefits of AEP's renewable generation proposal look better, i.e.. produce more savings for customers. But there is absolutely no record evidence to support Mr. Bletzacker's five percent per year dispatch burden. It's simply AEP's "view."[173] It's a "proxy for many things that *could* take place."[174] It does not exist now, and the best that Mr. Bletzacker can do is say that it "could exist."[175] As

[169] *See* Tr. III at 796:8-797:13.

[170] *See id.* at 804:20-806:3.

[171] *See* AEP's Brief at 53.

[172] *See id.*

[173] *See* Tr. III at 806:7-17.

[174] *See id.* at 807:2-3 (italics added).

[175] *See id.* at 807:6-9.

Mr. Lesser explained, including the so-called "dispatch burden" substantially inflates AEP's energy price forecast.[176]

Of note, there is no dispute over whether increased load can explain Mr. Bletzacker's increased energy prices. The model that Mr. Bletzacker used to forecast energy prices included peak load that is relatively close to current levels.[177]

AEP's Ohio impact analysis is not reliable. It understates the costs to consumers of AEP's proposal while at the same time overstating the proposal's benefits to customers.

3. AEP's PJM impact analysis and Ohio impact analysis that allege $173 million of total customer benefits has fundamental flaws that likely overstate the benefits to customers of the projects.

AEP's analyses have certain fundamental flaws. They assume that capacity from the proposed projects will clear the PJM market.[178] Mr. Lesser explained that "at the federal level, there have been proposals to prevent subsidized resources from participating in the regional market."[179] If adopted, these changes could reduce, if not eliminate, capacity revenue from the proposed project.[180] "A reduction or elimination of the capacity revenues will result in increased costs being charged to consumers through the non-bypassable RGR."[181]

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[176] *See* OCC Ex. 18 at 46-48 (Lesser).

[177] *See* Tr. III at 798:5-14.

[178] *See* OCC Ex. 18 at 50 (Lesser).

[179] *See id.*

[180] *See id.*

[181] *Id.*

Were the proposed projects able to clear the capacity markets, AEP's forecast is still flawed. It assumes unreasonably rapid growth for capacity prices.[182] But "there is nothing in Mr. Bletzacker's testimony that discusses the economic basis for this forecast."[183] The forecasted capacity prices are inconsistent with the past behavior of the PJM capacity market.[184] Mr. Lesser explained that the annual average rate of growth in the capacity market has been 3.8%.[185] If this trend continues, the capacity price in the 2040-41 planning year would be $216/MW-day. By comparison, AEP forecasts a capacity market price of $350/MW-day.[186] "AEP's unrealistic capacity price forecast artificially inflates the capacity revenue benefits to AEP Ohio customers . . . ."[187]

4. There may be less benefits, higher risks, and higher costs to customers from the projects as admitted by Natural Resources Defense Council, Ohio Environmental Council, and Sierra Club

NRDC, OEC, and Sierra Club also assert that utility-scale wind projects will benefit Ohio.[188] But Mr. Goggin admitted that the PJM region, which includes Ohio, has good wind resources *so long as* taller wind towers with longer blades (as compared to towers and blades in other regions) are built in the region.[189] Taller towers with longer blades built in the PJM region cost 10 to 15% *more* than wind turbines built in other

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[182] *See id.*

[183] *Id.* at 51.

[184] *See id.* at 52.

[185] *See id.* at 54.

[186] *See id.*

[187] *Id.* at 55.

[188] *See, e.g.,* Environmentals' Brief at 12-19.

[189] *See* Tr. IV at 923:24-924:15.

regions.[190] Further, Mr. Goggin admitted that AEP's proposal would transfer the business risks associated with the renewable generation and wholesale price deviations from AEP to consumers.[191] Higher-costs for, and greater risk borne by, consumers will not benefit Ohio.

AEP's proposal will not benefit Ohio in light of PJM rules, and potential rules, either, according to Mr. Goggin. There is a great deal of uncertainty regarding how the capacity value of renewables will be treated under pending MOPR rules.[192] That, in and of itself, should give the PUCO pause in approving AEP's proposal. Consumers will be paying for AEP's proposal, and they should not be required to in an uncertain environment.

This is particularly so given Mr. Goggin's acknowledgement that most of the proposed rules being considered by PJM will effectively exclude renewables from receiving capacity market clearance.[193] If AEP's renewable generation does not clear the capacity market, consumers' costs will increase.[194] If they are designated as a Fixed Resource Requirement, they would *not* participate in the wholesale markets but *would be* used for AEP's own customers.[195] Thus customers (or market share) would be taken from the Standard Service Offer and/or CRES suppliers.[196] In a deregulated state, such as

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[190] *See id.* at 924:16-24.

[191] *See id.* at 931:2-19.

[192] *See id.* at 912:6-11.

[193] *See id.* at 916:16-20.

[194] *See id.* at 917:8-12.

[195] *See id.* at 917:17-21.

[196] *See id.* at 917:22-918:1.

Ohio, that is a return to vertical integration of electric utilities.[197] Higher prices and returning to vertical integration by regulation does not benefit Ohio's competitive market structure or customers benefiting from that market.

In light of the uncertainty about how renewable generation will be treated in PJM and the different rules under consideration, the PUCO should consider potential, realistic outcomes of the PJM rule-making process. For example, if AEP's proposed renewable generation is not designated a Fixed Resource Requirement, there is no self-supply option, and the generation does not clear the wholesale market due to the minimum offer pricing rule (MOPR), consumers would pay twice for generation. First, consumers would pay for generation that *does* clear the wholesale market. Second, consumers would pay for AEP's renewable generation through the Renewable Generation Rider provided outside the market.[198] Ohioans paying twice for generation does not benefit Ohio.

PJM's rules also result in renewable deployment in Ohio that falls short of the level that would optimally serve the economic interests of AEP's customers, according to NRDC, OEC, and Sierra Club.[199] But Mr. Goggin – Sierra Club's own witness – explained that CRES suppliers provide renewable energy options to Ohioans, including 100% renewable energy.[200] So Ohioans, according to Mr. Goggin, are *already* empowered to decide for themselves what level of renewable energy optimally serves

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[197] *See id.* at 930:6-12.

[198] *See id.* at 929:2-930:5.

[199] *See* Environmentals' Brief at 24-25.

[200] *See* Tr. IV at 918:18-25.

their economic interests.[201] Higher costs, greater risk, and a return to vertical integration by regulation does not benefit Ohio when Ohioans are *already* empowered to decide for themselves what level of renewable energy optimally serves their economic interests.

5. The Public Utilities Commission of Texas has rejected a similar AEP proposal for renewables already; the PUCO should follow suit

Just recently, AEP sought a finding of need from the Public Utilities Commission of Texas to build renewable generation resources.[202] AEP sought authorization to acquire, develop, and own a wind generation facility with nameplate capacity of 2,000 MW.[203] Although the Administrative Law Judges recommended approving AEP's application, the Texas PUC rejected it.[204] AEP "failed to show that the project will lead to the probable lower of cost to [AEP's] consumers and, consequently, that it failed to show that the project is necessary for the service, accommodation, convenience, or safety of the public . . . ."[205] Further, AEP had not offered "sufficient consumers safeguards . . . that would allow" the Texas PUC to conclude that there was a probability of benefits to consumers.[206]

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[201] *See id.* at 919:1-5.

[202] *See Application of Southwestern Electric Power Company for Certificate of Convenience and Necessity Authorization and Related Relief for the Wind Catcher Energy Connection Project in Oklahoma*, PUCO Docket No. 47461.

[203] *See id.*, Order (August 13, 2018) at 1.

[204] *See id.* at 1-2.

[205] *See id.* at 2.

[206] *See id.* at 9.

The main focus in the proceeding was whether the project would result in the probable lowering of cost to consumers.[207] Although AEP forecasted a benefit to consumers, other parties called into question the assumptions in AEP's forecast.[208] The full cost of the project was not sufficiently known to provide an adequate cost-benefit analysis.[209] AEP's forecast of natural gas prices, a key driver of energy prices, was based on AEP's Fundamentals Forecast. The Fundamentals Forecast was found to be too high and out-of-step with futures prices, which the Texas PUC described as "actual transactions between buyers and sellers who put real money at risk in their day-to-day operations."[210] Further, AEP included a future carbon tax in its analysis of the purported benefits of its project.[211] Rejecting the use of a future carbon tax, it was found unsupported by the evidence – "there was no credible evidence to show that the imposition of such a carbon tax is likely in the future."[212]

The Texas PUCO did not address the accuracy or reasonableness of any individual assumption in the case.[213] Instead, it found that there was enough doubt surrounding the assumptions made by AEP, the party with the burden of proof, that its application could not be approved.[214]

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[207] *See id.*

[208] *See id.* at 3.

[209] *See id.* at 4.

[210] *See id.*

[211] *See id.* at 5.

[212] *See id.*

[213] *See id.* at 8.

[214] *See id.* at 8-9.

As described earlier, to say there is doubt surrounding the assumptions made by AEP in this case is to put it lightly. To arrive at one purported benefit of its proposal, AEP relied on Mr. Ali and Mr. Torpey to describe the lower locational marginal prices that bringing new renewables on-line would result in. But Mr. Ali and, hence, Mr. Torpey, did not account for key considerations in their analysis – the impact on ancillary services prices, transmission costs, or whether coal-fired or gas-fired plants could reach the same result better. And there is no record evidence that the existing renewable generation relied on by Mr. Ali and, hence, Mr. Torpey, is anything like the projects AEP is proposing here.

In hypothesizing about the project's purported benefits, Mr. Torpey also relied on Mr. Bletzacker. As was the case in Texas, Mr. Bletzacker's forecasted natural gas prices were much higher than forward prices. As in Texas, Mr. Bletzacker relied on AEP's internal Fundamentals Forecast. As was the case in Texas, Mr. Bletzacker also included a future carbon tax (a "dispatch burden") in his analysis. And Mr. Bletzacker's forecast did not account for how the market would react to his projected higher prices or other, recognized factors putting downward pressure on prices, such as technological advances and increased production of inexpensive natural gas.

Ohio should follow the lead of its sister state and reject AEP's proposal, as the uncertainty surrounding AEP's proposal in Texas is present, in abundance, here.

B. The law—R.C. 4928.143(B)(2)(c)—does not consider economic development when determining the need for power plants based on resource planning projections.

As explained in OCC's Initial Brief and elsewhere in this Reply Brief, there could be a "need" for AEP's proposed solar power plants under R.C. 4928.143(B)(2)(c) if (i) without the proposed power plants, customers' lights would go out, or (ii) without the

proposed power plants, AEP would not be able to meet its renewable energy mandates under R.C. 4928.64.[215]

In their initial briefs, some parties urge the PUCO to consider the positive economic development aspects of power plants (*e.g.*, job growth, state and local tax revenues) in determining whether there is a "need" for AEP's proposed power plants under R.C. 4928.143(B)(2)(c).[216] But this position is against the law. The PUCO has already unambiguously spoke on this issue: economic development is outside the scope of the definition of "need for the facility based on resource planning projections" under R.C. 4928.143(B)(2)(c).

In the *Turning Point* decision, AEP and others made the very same argument: that the PUCO should adopt a definition of "need" that includes factors like the state's overall energy policy and job creation.[217] The PUCO recognized that the proposed power plant in that case "may potentially provide numerous benefits, particular for the project region."[218] Yet the PUCO ruled that there was no need for the projects in question because there was no capacity shortfall and no need for the project to allow AEP to meet its renewable mandates.[219] The current case is no different.

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[215] *See* OCC Initial Brief at 9-13.

[216] *See, e.g.,* AEP Brief at 55-60; MAREC Brief at 6-8; OEG Brief at 14-15; OPAE Brief at 26-29; Environmentals' Brief at 16-19.

[217] *See* OCC Initial Brief at 10 (citing *In re 2010 Long-Term Forecast Report of the Ohio Power Company*, Case No. 10-501-EL-FOR).

[218] *In re 2010 Long-Term Forecast Report of the Ohio Power Company*, Case No. 10-501-EL-FOR, Opinion & Order at 27 (Jan. 9, 2013).

[219] *Id.* at 26-27.

There is little dispute that building power plants in Ohio would provide at least some marginal economic benefits for the State of Ohio in the form of jobs and tax revenues. And job creation and funding for State and local governments are important public policy issues that should receive support from the General Assembly and, when appropriate, the PUCO. But here, the law is clear: whether there is a "need" for power plants based on a utility's resource planning projections does not include an analysis of economic development benefits. Thus, the PUCO lacks statutory authority to consider them. The PUCO should follow its own *Turning Point* precedent and the plain language of R.C. 4928.143(B)(2)(c) and again rule that economic development benefits do not support a finding of need.

C. Any conceivable power plant in Ohio—coal, nuclear, renewable, or otherwise—would generate in-state jobs and tax revenues. There would be no limit on a utility's ability to own generation (and destroy the competitive market) if economic development were deemed synonymous with "need" under R.C. 4928.143(B)(2)(c).

In 1999, the Ohio General Assembly decided that electricity generation should be provided by markets instead of regulated monopolies. The provision in R.C. 4928.143(B)(2)(c) allowing a utility to own or operate generation if there is a "need" for it based on resource planning projections is a narrow exception to that rule. But if the PUCO interprets "need" under R.C. 4928.143(B)(2)(c) to include economic development, then the exception would swallow the rule.

Parties point to the purported economic development benefits that would result from building two solar power plants in Ohio.[220] While AEP's economic development

[220] *See, e.g.,* AEP Brief at 55-60; MAREC Brief at 6-8; OEG Brief at 14-15; OPAE Brief at 26-29; Environmentals' Brief at 16-19.

analysis has flaws and limitations (discussed below), there is little dispute that the proposed projects, if built, would create some jobs and would result in some additional tax revenues for state and local governments in Ohio. But the same would undoubtedly be true of any power plant being built, including those built by merchant generators.

In recent cases, OCC has vigorously opposed power plant subsidies. For example, OCC has consistently opposed subsidies for power plants owned and operated by OVEC.[221] Those power plants happen to be coal-fired power plants. But OCC's opposition was unrelated to the fuel source—a power plant subsidy is a power plant subsidy, and it should not approved regardless of the fuel source. In those OVEC coal power plant cases, OCC was joined by many of the same parties that now support AEP's proposed solar power plant subsidies.[222]

If the PUCO approves this proposal for solar power plants based on a finding that the plants would create jobs, then next in line could be utility proposals for new coal-fired, natural gas-fired, and nuclear plants, subsidized by captive monopoly customers. Any such projects would undoubtedly result in jobs and tax revenue for the Ohio economy. But that would not constitute a "need" for those power plants, just as it does not constitute a "need" for AEP's proposed solar power plants.

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[221] *See, e.g.*, Case No. 14-1693-EL-RDR, Opinion & Order (Mar. 31, 2016) (describing OCC's opposition to AEP's proposed OVEC power plant subsidy); Case No. 17-1263-EL-SSO, Opinion & Order (Dec. 19, 2018) (describing OCC's opposition to Duke's proposed OVEC power plant subsidy); Case No. 16-395-EL-SSO, Opinion & Order (Oct. 20, 2017) (describing OCC's opposition to DP&L's proposed OVEC power plant subsidy).

[222] *See, e.g.*, Case No. 17-1263-EL-SSO, Opinion & Order (Dec. 19,2018) (Sierra Club, Ohio Environmental Counsel, and Environmental Defense Fund opposing coal power plant subsidies).

D. Ohio will receive precisely the same economic development benefits if the proposed solar power plants are built by the market and not subsidized by captive monopoly customers.

Solar power plants can be built by market participants without subsidies from captive monopoly customers.[223] Indeed, there is nothing stopping one of AEP's unregulated affiliates—or anyone else—from entering into renewable energy purchase agreements with the developers of AEP's proposed projects, thus allowing the projects to be built.[224] And importantly, the economic development benefits that AEP projects do not depend on AEP's involvement. If the plants are built without any subsidies at all, Ohioans will receive all of the same benefits that AEP projected, but without the cost of additional captive customer-funded subsidies.[225]

E. Although there is evidence that AEP's proposed power plants, if built, would result in additional Ohio jobs and other economic development, the PUCO should be careful not to overstate the value of these benefits.

In this case, AEP highlights economics benefits as one of the driving factors supporting its claim that there is a "need" for its proposed solar power plants.[226] Other parties cite AEP's economic development analysis as well.[227] OCC does not dispute that there would be economic development benefits from building solar power plants in Ohio.

As explained previously, however, the law does not allow the PUCO to consider economic development when analyzing the existence of "need" under R.C.

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[223] OCC Ex. 25 at 5.

[224] OCC Ex. 18 at 13.

[225] Tr. IV at 1149-50 (LaFayette).

[226] AEP Brief at 55-60.

[227] *See, e.g.,* MAREC Brief at 6-8; OEG Brief at 14-15; OPAE Brief at 26-29; Environmentals' Brief at 16-19.

4928.143(B)(2)(c).[228] Independent of that, however, the PUCO should be careful not to overstate the value of the economic benefits from the projects.

First, while the economic development study analyzed the potential economic *benefits* to Ohioans, it ignored important *costs*. For instance, the study ignored opportunity costs. That is, it did not account for the fact that if customers were not required to pay for AEP's proposed power plant subsidies, they would have additional money to spend on other goods and services.[229] AEP witness LaFayette also acknowledged that these electric bill charges could result in reduced income tax revenues for local governments, but that he did not account for this in his study.[230]

Second, the vast majority of the economic benefits are short term benefits from the construction of the power plants. AEP projects that nearly 99% of the jobs resulting from the projects will be short-term construction jobs that will disappear when the power plants are finished being built.[231] And AEP projects that only 26 permanent jobs will be created at the solar power plants in Highland County themselves[232]—hardly the type of game-changing job-growth that will revitalize an entire region of Ohio, as AEP and others seem to suggest throughout their briefs.[233]

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[228] OCC Initial Brief at 9-13.

[229] OCC Ex. 18 at 94. *See also* Tr. IV at 1141 (LaFayette) (admitting that the economic development study did not account for any of the potential costs that customers would pay for AEP's proposal through their electricity bills).

[230] Tr. IV at 1142 (LaFayette).

[231] AEP Ex. 12, Ex. SB/BL-1 at Page 4 of 48 (3,870 construction jobs), Page 5 of 38 (51 long-term jobs).

[232] AEP Ex. 12, Ex. SB/BL-1 at Page 5 of 38 (showing only 26 direct jobs being produced as a result of the new power plants).

[233] *See, e.g.,* AEP Brief at 55-60.

Third, even if the proposed solar power plants will be located in Highland County, there is no evidence that any news jobs will be filled by *current* Highland County residents. Indeed, AEP witness testified that with respect to the construction phase—which includes nearly 99% of the projected jobs[234]—the developer would "bring people in" from other areas to fill the jobs.[235] If the point of locating the solar facilities in Highland County is to provide jobs for currently unemployed Highland County residents, but all of the workers are imported from other areas, then the current, struggling residents of that county will continue to struggle, notwithstanding the new solar plants.

F. The PUCO should give no weight to the Navigant Survey because the law does not allow it to, and because the Navigant Survey is so flawed as to be meaningless.

1. The law—R.C. 4928.143(B)(2)(c)—does not consider customers' "wants" when determining the "need" for power plants based on resource planning projections.

As explained in OCC's Initial Brief and elsewhere in this Reply Brief, there could be a "need" for AEP's proposed solar power plants under R.C. 4928.143(B)(2)(c) if (i) without the proposed power plants, customers' lights would go out, or (ii) without the proposed power plants, the utility would not be able to meet its renewable energy mandates under R.C. 4928.64.[236]

In support of its claim that there is a "need" for its proposed renewable power plants, AEP and others cite the results of a survey performed by Navigant Consulting (the

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[234] AEP Ex. 12, Ex. SB/BL-1 at Page 4 of 48 (3,870 construction jobs), Page 5 of 38 (51 long-term jobs).

[235] Tr. IV at 1140-41 (LaFayette).

[236] *See* OCC Initial Brief at 9-13.

"Navigant Survey" or "survey"[237]).[238] According to these parties, because customers "want" renewable energy, there is a statutory "need" for it.[239]

As the PUCO surely understands, the words "want" and "need" do not mean the same thing.[240] And customers' desire for renewable energy, does not create a shortfall capacity, nor does it mean that AEP is unable to meet its renewable energy mandates. Thus, the General Assembly did not intend for customer wants to be considered when deciding whether monopoly utilities should be allowed to charge their customers for subsidized power plants. The PUCO should give no weight to the Navigant Survey when considering whether AEP has met its burden of proving need under R.C. 4928.143(B)(2)(c).

2. The Navigant Survey has so many flaws, it is hard to keep track of them all. It provides no probative value whatsoever regarding customer's opinions or willingness to pay for renewable energy.

It is difficult to find anything redeeming about the Navigant Survey. Just about everywhere it could have gone wrong, it did.

a. Willingness to pay is more accurately evaluated by analyzing whether customers actually choose to pay more for renewable energy, not whether they say that they hypothetically would pay.

One of the Navigant Survey's most damaging flaws is its use of an unreliable survey approach called the "stated preference" approach instead of the superior "revealed

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[237] The Navigant Survey is attached as Exhibit TH-1 to the testimony of AEP witness Horner (AEP Ex. 6).

[238] AEP Brief at 27-44; Environmentals' Brief at 2; OPAE Brief at 18; MAREC Brief at 8-10.

[239] AEP Brief at 27-44; Environmentals' Brief at 2; OPAE Brief at 18; MAREC Brief at 8-10.

[240] *See, e.g.,*, Staff Ex. 2 at 9 ("Ohio Power is conflating customer preferences with customer needs.").

preference" approach. OCC witness Dormady succinctly summarized why the revealed preference approach is superior:

> There's an easy way to think about the difference between the Stated Preference and Revealed Preference Approaches. The Stated Preference approach analyzes what people *say* they will do, while the Revealed Preference Approach analyzes what people *actually* do. And importantly, these are often not the same.
>
> Revealed preference studies are almost always more reliable because stated preference studies suffer from many types of bias.... Stated preference studies tend to grossly inflate true willingness-to-pay and misrepresent true behavior and attitudes of the population of study.[241]

Navigant provided no explanation for its use of an inferior and less reliable survey method. The PUCO should give no weight to the Navigant Survey.[242]

b. The Navigant Survey suffers from numerous types of bias, and Navigant took virtually no steps to reduce such biases, thus making the survey wholly unreliable.

The Navigant Survey is a biased survey that cannot be used to draw any conclusions about what AEP's customers think about renewable energy, or how much they would be willing to pay for renewable energy.

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[241] OCC Ex. 24 at 6. *See also* OCC Ex. 18 at 89 ("The most accurate way to examine [willingness to pay] for green energy is to consider the actual choices made by the approximately 2.5 million residential and commercials customers in the state who purchase their electricity from retail energy marketers.").

[242] OCC Ex. 6 at 4 (OCC witness Dormady testifying, "I recommend that the PUCO not use the survey results for making policy decisions in these proceedings related to whether there is a need for renewables...").

Statistical error exists in all survey-based research.[243] Because statistical analysis relies on taking a small sample and extrapolating conclusions to the general population, error exists "even with the most carefully-conducted and designed research with textbook-perfect conditions in place."[244] But error is benign. Over a large enough sample size, error in one direction cancels out error in the other direct, so it does not change the ultimate conclusions of the statistical analysis.[245]

Bias, on the other hand, is consistent error in one direction.[246] The design of a survey can cause those in the sample to respond in ways that do not accurately represent the entire population.[247] When a survey is designed to produce error consistently in one direction, it is not reliable, and it cannot be used to draw conclusions about the population at large.

The Navigant Survey is biased. It includes no fewer than five different types of bias—framing bias, hypothetical bias, social desirability bias, selection bias, and coding bias—any one of which alone could render the results unreliable. Given Navigant's failure to control for these types of bias, the PUCO should give no weight to the Navigant Survey.

Framing Bias. The Navigant Survey suffers from framing bias.[248] This means that the way the information in the survey was presented encourages customers to respond in

[243] OCC Ex. 24 at 10.

[244] OCC Ex. 24 at 10.

[245] OCC Ex. 24 at 11.

[246] OCC Ex. 24 at 11.

[247] OCC Ex. 24 at 11.

[248] OCC Ex. 24 at 15-16.

a particular way.[249] In the survey, immediately before asking customers how much they would be willing to pay for renewable energy, Navigant included a summary highlighting the potential benefits of renewable energy and not the costs.[250] This type of pre-conditioning would make customers more likely to say that they support renewable energy.[251]

Hypothetical Bias. The Navigant Survey suffers from hypothetical bias.[252] What customers *say* they would do, and what they *actually* do are often different.[253] In short, people tend to say they would pay a certain amount when asked hypothetically, but when they actually have to reach for their wallets, the amount they are willing to pay is lower.[254] The Navigant Survey asked customers how much they would be willing to pay, hypothetically, but no customer was required to actually pay anything as a result of the survey. Notably, there are numerous ways that the hypothetical bias can be mitigated, including (i) informing respondents about the bias, (ii) emphasizing the importance of responding based on true willingness to pay, (iii) requiring respondents to sign oath, and (iv) enforcing a financial penalty on the subject.[255] Navigant did not use any of these approaches, nor any others, to attempt to reduce hypothetical bias.[256]

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[249] OCC Ex. 24 at 15.

[250] OCC Ex. 24 at 15.

[251] OCC Ex. 24 at 15-16. *See also* OCC Ex. 18 at 85-86.

[252] OCC Ex. 24 at 16-17.

[253] OCC Ex. 24 at 6.

[254] OCC Ex. 24 at 16-17.

[255] OCC Ex. 24 at 18-19.

[256] OCC Ex. 24 at 20.

Social Desirability Bias. The Navigant Survey suffers from social desirability bias.[257] When responding to surveys about social issues, respondents have been shown to report what they think they "should be saying," rather than what they really believe.[258] The Navigant Survey took no steps to reduce this bias.[259]

Selection Bias. Navigant made no effort to guarantee that the chosen sample of customers was representative of the larger customer base about which the Navigant Survey purports to draw conclusions.[260] A survey is only reliable if the chosen set of people responding to the survey accurately represent the larger population.[261] Selection bias occurs when the sample of respondents is distorted.[262] Here, there is evidence of selection bias.

First, AEP, and not Navigant, chose which customers to include in the sample.[263] Navigant took no steps to confirm that AEP's sample was truly random, instead blindly relying on AEP.[264]

Second, Navigant made no effort to determine that the sample was representative of the overall AEP population as it pertains to income, age, population density, and other demographic factors, all of which can make a sample biased.[265]

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[257] OCC Ex. 24 at 21-22.

[258] OCC Ex. 24 at 21.

[259] OCC Ex. 24 at 21-22.

[260] OCC Ex. 24 at 9-10.

[261] OCC Ex. 24 at 24.

[262] OCC Ex. 24 at 24.

[263] OCC Ex. 24 at 25; *see also* Tr. III at 587 (Horner).

[264] Tr. III at 587 (Horner).

[265] OCC Ex. 24 at 25.

Third, the sample was skewed by Navigant's decision to include only customers with email addresses on file with AEP.[266] By including only customers with email addresses, Navigant excluded 38% of non-PIPP residential customers, 43% of PIPP residential customers, and 65% of small commercial and industrial (C&I) customers, right from the start.[267] Worse yet, Navigant was apparently unaware that such a large percentage of customers were excluded[268] and did nothing to analyze whether this exclusion skewed its survey results.[269] Instead, Navigant simply assumed that customers with email addresses are statistically identical to customers without them, even though Navigant witness Horner admitted that such an assumption is invalid.[270] Navigant could have mitigated this problem by sending customers without email addresses a snail mail copy of the survey, but they simply declined to do so.[271]

Coding Bias. Navigant's analysis of the open-ended questions in the survey was improper. Navigant relied on a single individual to subjectively analyze these questions—and that individual did not testify in this case, so there is no way for the PUCO to know what factors that individual considered when categorizing the open-ended responses.[272]

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[266] OCC Ex. 18 at 80-81 (concluding that there is "no statistical justification" for excluding customers without email addresses and assuming that they are the same as customers with email addresses).

[267] OCC Ex. 5.

[268] Tr. III at 582 (Horner) (erroneously claiming that a majority of residential and small C&I customers had email addresses); Tr. III at 583 (Horner).

[269] Tr. III at 583 (Horner).

[270] Tr. III at 583-84 (Horner).

[271] Tr. III at 585 (Horner).

[272] OCC Ex. 24 at 27; Tr. III at 599-600 (Horner).

Instead, Navigant should have used a more objective coding algorithm to ensure that all open-ended responses were analyzed consistently.[273]

The PUCO should not rely on a survey that includes numerous types of bias, all of which are skewed in favor of AEP's desired result in this case.

c. The Navigant Survey is more notable for what it *didn't* include than what it did.

AEP uses the Navigant Survey to draw conclusions that go well beyond what the survey could possibly show. This is because the survey (i) included questions that were poorly worded and (ii) failed to ask critical questions that might actually reveal what customers want and need.

AEP claims that not only does the Navigant Survey show that customers want more renewable energy, but that they specifically want AEP to provide it as opposed to some other entity.[274] Not true. Even if the survey indicated that customers want to pay more for renewable energy, the survey says nothing at all about *who* they want it from.

For example, customers that want renewable energy might not care who it comes from. They might be completely indifferent to whether that renewable energy is provided by AEP as opposed to some other entity, say, a marketer like IGS. The Navigant Survey *could have* explored this issue by asking a question such as, "If renewable energy is developed in Ohio, do you prefer that it be developed by (i) AEP, (ii) another energy supplier, (iii) indifferent as to whether it is AEP or another supplier, (iv) neither." But the

[273] OCC Ex. 24 at 27.

[274] AEP Brief at 29.

Navigant Survey did not ask customers whether they want AEP to invest in renewables as opposed to some other entity:

> Q. So you didn't ask customers, do you want AEP to invest in renewables as opposed to some other entity, correct?
>
> A. Correct. The survey just asked customers about AEP Ohio actions.
>
> ...
>
> Q. [D]oes your survey include a question asking customers if they prefer AEP over other entities when it comes to renewable investments?
>
> A. The survey did not reference other entities.[275]

This omission is important. One of the key issues in this case is whether AEP, as a regulated monopoly utility, should be investing in generation, which is supposed to be competitive and market based in Ohio.[276] Thus, the distinction between renewable investments by AEP as compared to unregulated entities is crucial. Yet Navigant ignored this issue entirely in the survey by asking customers only about AEP's potential renewable investments.

The Navigant Survey also asked customers whether they would be willing to pay more for renewable energy but declined to tell them that (i) they already pay more for renewable energy through AEP's renewable energy rider (Rider AER), and (ii) the renewable energy mandates in Ohio are set to triple over the next seven years.[277]

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[275] Tr. III at 563 (Horner).

[276] OCC Ex. 25.

[277] R.C. 4928.64(B)(2) (mandate increases from 4.5% in 2018 to 12.5% in 2026).

For the residential portion of the survey, Navigant asked customers whether they would be willing to pay $0.75 to $1.75 per month for renewable energy.[278] What Navigant did not tell residential customers is that they already pay for renewable energy through AEP's renewable energy rider.[279] This is not a harmless omission. In the second quarter of 2018 (immediately before the Navigant Survey was performed) the average residential customer was paying $2.07 per month for the renewable energy rider—more than the highest amount on Navigant's willingness-to-pay scale.[280] If customers were informed that they are already paying AEP for renewable energy, they might have been less likely to respond favorably to Navigant's willingness-to-pay questions.

The Navigant Survey also informs customers that AEP "currently obtains 4.5% of its electricity from renewable sources,"[281] presumably a reference to the statutory renewable mandate, which for 2018 was 4.5%.[282] But again, the Navigant Survey omitted an important detail that could materially impact customers' willingness to pay: the statutory mandate increases by 1.0% each year until it reaches 12.5% in 2026 and each year thereafter.[283] If customers knew that they would continue to pay for AEP to meet increasingly more significant renewable mandates, they might not have been so generous in their willingness-to-pay responses.

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[278] AEP Ex. 6, Ex. TH-1 at Figure 9.

[279] AEP Ex. 6, Ex. TH-1 Appendix.

[280] OCC. Ex. 6.

[281] AEP Ex. 6, Ex. TH-1 at Page 37 of 41.

[282] R.C. 4928.64(B)(2).

[283] R.C. 4928.64(B)(2). *See* Tr. III at 614 (Horner).

d. Navigant double and triple-counted certain commercial and industrial customers in its analysis, thus skewing the results and making them unusable.

The Navigant Survey consisted of three separate analyses. First, Navigant researched large C&I customers' public commitments to sustainability efforts, which Navigant called the "Sustainability Customer Commitment Analysis."[284] Second, Navigant contacted large C&I customers directly to discuss their views on carbon reduction and renewable energy, which Navigant called the "Outreach to Sustainably Minded Large Customers."[285] Third, Navigant performed an email survey of residential and small C&I customers.[286]

But because Navigant haphazardly defined what constitutes a "small" vs. a "large" C&I customer, Navigant may have double or even triple-counted certain customers' opinions on renewable energy.

Navigant defined small C&I customers as those using less than one million kWh per year.[287] The Navigant Survey defined large C&I customers as those using more than 100,000 kWh per year.[288] This means that a C&I customer using between 100,000 kWh and 1 million kWh could be counted in each of Navigant's three analyses.[289] To the extent the PUCO gives weight to customers' views as expressed through the Navigant

[284] AEP Ex. 6, Ex. TH-1 at Page 12-13 of 41.

[285] AEP Ex. 6, Ex. TH-1 at Page 14 of 41.

[286] AEP Ex. 6, Ex. TH-1 at Page 15-41 of 41.

[287] Tr. III at 567 (Horner).

[288] Tr. III at 570-73 (Horner).

[289] Tr. III at 570-73 (Horner).

Survey, it certainly should not allow some customers' opinions to be counted two or even three times.

In fact, large customers with many locations could be counted not just two or three times, but *hundreds*. AEP witness Fry admitted that a customer like Kroger, who might have upwards of 130 locations in AEP's service territory, could have been counted as a small C&I customer 130 times—once for each location.[290] Common sense should prevail. Customers should not have their opinions counted 130 times in a survey where the majority of customers get only a single vote.

This multiple counting of C&I customers renders the entirety of Navigant's analysis of C&I customers—both small and large—unreliable.

e. Navigant admits that its large commercial and industrial analysis is not statistically valid. The PUCO should give it no weight.

Navigant's own report states that its outreach to large C&I customers "should not be considered statistically representative of AEP Ohio's C&I customer base or even its largest corporate customer base due to the targeted sample approach and relatively limited number of responses."[291] On cross examination, AEP witness Horner confirmed that Navigant's large C&I customer analysis is not reliable: "The purpose of this section of the report is, as I said, to not necessarily arrive at a conclusion about what large C&I customers believe about the initiative that AEP Ohio was pursuing."[292]

[290] Tr. III at 749 (Fry).

[291] AEP Ex. 6, Ex. TH-1 at Page 14 of 41.

[292] Tr. III at 578 (Horner).

The PUCO should give the large C&I customer analysis zero weight—Navigant itself admits that it deserves none.

f. Navigant allowed AEP's own employees to respond to the survey, which could materially skew the results.

Navigant did not screen AEP employees from the survey.[293] In fact, 484 AEP employees were included in the survey sample, which, as Ms. Horner testified on redirect examination, is equal to seven percent of all non-PIPP residential customers that responded to the survey.[294] AEP witness Horner testified that she didn't believe this would "materially" impact the conclusions in the Navigant Report, but the numbers say otherwise.

For example, according to the Navigant Survey, 52% of residential non-PIPP customers considered it "very important" that AEP make greater use of renewable energy.[295] If the 484 AEP employees were excluded (up to seven percent of the respondents), that number could be lower, showing that a majority of residential non-PIPP customers do *not* think it is very important for AEP to make greater use of renewable energy. The PUCO cannot simply dismiss these 484 AEP employees as a rounding error. Their inclusion in the survey may have unfairly skewed the results in favor of AEP's proposal.

[293] Tr. III at 724 (Horner).

[294] Tr. III at 725 (Horner).

[295] AEP Ex. 6, Ex. TH-1 at Page 17 of 41.

3. OCC witness Professor Dormady is more qualified and more reliable than AEP witness Horner, and thus, the PUCO should adopt his expert opinion that the Navigant Survey is so flawed as to provide no reliable information about customers' willingness to pay for renewable energy.

In its initial brief, AEP attempts to bolster the Navigant Survey and the surveys sponsoring witness, Trina Horner, by disparaging the qualifications of OCC's and others' expert witnesses who addressed the Navigant Survey.[296] This attempt fails for at least two reasons. First, OCC witness Dormady in particular is undeniably an expert in proper survey methods. Second, AEP witness Horner's flimsy resume make her an unreliable witness.

OCC witness Dormady has a Ph.D. in Public Policy, Planning and Development from the University of Southern California.[297] He has published in peer-reviewed scholarly journals on energy and environmental economics and public policy, including on the use of survey methods for economic measurement.[298] Multiple government and non-government organizations have funded his survey-based research.[299] As a professor at the Ohio State University, he literally designs surveys and analyzes the results for a living.[300]

AEP suggests that the PUCO should discount Professor Dormady's testimony because he does not design and implement precisely the same type of survey that

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[296] AEP Brief at 36-40.

[297] OCC Ex. 24 at 1.

[298] *Id.* at 1-2.

[299] *Id.* at 1-2.

[300] *Id.* at 1-2.

Navigant designed and implemented.[301] AEP's implication is, apparently, that Professor Dormady's extensive knowledge and experience with best practices in survey methods, including how to avoid bias in designing a survey, don't apply to the Navigant Survey. But a biased survey is a biased survey, whether it pertains to customers' willingness to pay for renewable energy or any other economic topic. Professor Dormady's qualifications speak for themselves—he is overwhelmingly qualified to identify errors in the Navigant Survey, and he did so based on his extensive experience.

In contrast, Ms. Horner's purported qualifications as a survey expert are flimsy, . Ms. Horner has no educational background in surveys.[302] Ms. Horner did not design, implement, or analyze surveys in her previous positions working as an independent consultant and for utilities.[303] Before this case, Ms. Horner had never testified before a single state regulatory body.[304] Ms. Horner testified that she believed the survey results were statistically significant, but she admitted that she doesn't even know what statistical significance means.[305]

In sum, OCC witness Dr. Dormady is a well-respected professor at Ohio State University who makes his living performing survey-based research, whereas AEP witness Ms. Horner is new to surveys and testifying for the first time before a state regulatory agency. The PUCO should find that Professor Dormady's testimony is

[301] AEP Brief at 36-37.

[302] Tr. III at 631 (Horner).

[303] Tr. III at 630 (Horner).

[304] Tr. III at 651 (Horner).

[305] Tr. III at 703 (Horner).

substantially more reliable than Ms. Horner's and should adopt his recommendation that the Navigant Survey be given no weight.

4. The PUCO cannot ignore the countless errors in the Navigant Survey simply because no other witness provided a separate survey.

AEP suggests that the only way to refute the Navigant Survey would be for another expert to provide his or her own competing survey.[306] This argument fails for at least two reasons.

First, AEP has the burden of proof in this case. No other party is required to put on *any* evidence. If AEP's evidence is insufficient to meet its burden of proof, then it loses, regardless of what other evidence is or is not offered by other parties.

Second, OCC witness Dormady and others testified regarding the numerous flaws in the Navigant Survey.[307] These flaws have already been explained at length. AEP seems to suggest that the PUCO should ignore obvious flaws and errors in the Navigant Survey simply because no other witness did a wholesale re-do of the survey.[308] But this no makes sense. False information does not become true simply because the actual, true information has not been offered to replace it. The Navigant Survey is inaccurate. It does not become accurate simply because no other party provided a competing survey.

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[306] AEP Brief at 36 ("no one other than the Company surveyed AEP Ohio customers regarding their interest in renewables and their willingness to pay for utility-scale renewable development in Ohio").

[307] *See, e.g.,* OCC Ex. 24.

[308] AEP Brief at 36.

5. AEP and others ignore the fact that fewer than 50% of small C&I customers responded that they would willingly pay more for renewable energy.

Throughout their initial briefs, AEP and others paint a picture of overwhelming support for renewable energy based on the Navigant Survey.[309] Notably, however, they all omit one crucial detail: a majority of small C&I customers *did not* express a willingness to pay more for renewable energy.[310] So even with all of the flaws in the survey that were designed to get customers to support renewable energy, less than 50% of small C&I customers answered that they were willing to pay more for renewable energy. This critically undermines AEP's claim that customers overwhelmingly want to pay more for renewable energy.

6. Numerous customers responded to the Navigant Survey, opposing AEP's proposal for power plant subsidies.

Several parties cite the publicly-filed comments in this case as well as Ohioans' comments at the public hearing as support for their conclusion that customers overwhelmingly want the PUCO to approve AEP's proposal.[311] But numerous customers expressed opposition to the proposal as well. The following is merely a sample of the many comments that AEP received in response to the Navigant Survey, opposing AEP's proposal to charge its monopoly customers for new power plants:[312]

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[309] *See, e.g.*, AEP Brief at 27-44; Environmentals' Brief at 2; OPAE Brief at 18-25; MAREC Brief at 8-9.

[310] AEP Ex. 6, Ex. TH-1 at Figure 10; Tr. III at 591-92 (Horner) (confirming that fewer than 50% of the small C&I respondents in Figure 10 responded that they would be willing to pay at least something additional for renewable energy).

[311] *See, e.g.,* Environmentals' Brief at 2; AEP Brief at 5; OPAE Brief at 21.

[312] *See* IGS Ex. 11.

- "Renewable energy is great, but it doesn't need to be developed by AEP Ohio."

- "I already have options for renewables through the deregulated choice market. AEP Ohio should not be building generation. The financial risk of any generation including renewables should be left to independent developers and certainly not rate payers of AEP Ohio."

- "I'm sure some how this is going to cost the consumer big $$$. AEP rips off its customers on a daily."

- "This should not be at the expense of customers."

- "Maximize Hydro-Electric. Solar & Wind. DO NOT pass investment costs to consumer."

- "I do not feel the customer should pay for it."

- "Another AEP ripoff."

- "You charge way too much for electric service, actually it's all the riders you put on the bills. If your new endeavors further increase the riders and utility charges then forget it, I don't want things to change."

- "The free market, capitalism, innovation and competition should dictate the rate of renewable energy acquisition."

- "Th[e] questions on this survey are so slanted toward AEP how can it be impartial?"

- "Why is my electric distribution company considering making investments in generation?"

- "The electricity generating market is both regional (Multi-state) and competitive. Regulated monopolies should not be engaged in this business in any other form than as a competitive bidder to end-users."

- "This is a bad idea."

- "I am more concerned with cost."

- "As a customer I want the least cost generation for my service."

- “I am not in favor of anything that would increase my bill”
- “Not important to me at all. The priority should be to provide the cheapest, most reliable electricity regardless of source.”
- “If this will result in higher monthly bills, I am not in favor of the development of this process.”
- “Just don't want to receive another bill increase, seems to happen much too often.”
- “I don’t care where or how my electricity is generated. I want the most reliable service for the cheapest price.”
- “AEP is sitting on plentiful natural gas. Use it to produce the cheapest electricity possible.”
- “Not interested in renewable energy if it cost more to produce than nonrenewable energy.”
- “Keep costs low that is the most important issue.”
- “Don't pass added costs to consumer. Your rates are already exorbitant.”
- “Don’t want to pay more.”
- “Choices of source of energy should be based of least cost.”
- “At what cost is this to me the customer. I know it will either increase your profits or shares but what does it do for me the consumer.”
- “Keep the price of electric low.”
- “stop stealing money from poor citizens”
- “You are already charging too much for energy, please do not make investments that will cost your customers more.”
- “I want reliable and cheap power. Nothing else matters.”
- “AEP is enjoying a monopoly around where I live so I don’t believe they care about cost to consumers”

- "Renewable energy should only be pursued when it is competitive in the market place."
- "I have no interest in renewable energy if it's going to increase my electric bill."
- "AEP rates are already excessive. Do not raise them further."
- "Do not do anything that is not already economical without government subsidy."

If the PUCO considers the Navigant Survey results and public comments in favor of AEP's proposal, it should likewise give considerable weight to the many customers who have expressed opposition to the proposal and frustration with AEP's high electric bill charges.

VI. IN ADDITION TO AEP'S PROPOSAL BEING AGAINST OHIO LAW, THE PUCO IS WITHOUT JURISDICTION TO AUTHORIZE A CHARGE UNDER THE RENEWABLE GENERATION RIDER BECAUSE ITS JURISDICTION IS PREEMPTED BY THE FEDERAL POWER ACT

As OCC demonstrated in its Initial Brief, the PUCO is without jurisdiction to authorize a charge under the Renewable Generation Rider because its jurisdiction is preempted by the Federal Power Act.[313] OEG tries to help AEP salvage its plan by arguing that it is consistent with federal law.[314] But even a cursory look at OEG's own authority shows that the PUCO's jurisdiction is preempted.

[313] *See* OCC's Initial Brief at 39-47.

[314] *See* OEG's Brief at 6-8.

Citing a FERC Order,[315] OEG asserts that FERC is exploring market designs aimed at facilitating state generation policymaking while protecting the wholesale market.[316] But OEG's own quotation from the FERC Order confirms that AEP's proposal is preempted. In the FERC Order, FERC affirmed the uncontroversial point that states can support their preferred types of resources. But in saying so, it emphasized that FERC still "has exclusive jurisdiction over the wholesale rates of both subsidized and unsubsidized resources, . . ."[317] As explained in detail in OCC's Initial Brief, the PUCO's jurisdiction is preempted because approving AEP's proposal would set the wholesale rate received by AEP.[318] As confirmed by the FERC Order that OEG itself cites, wholesale rates are within FERC's exclusive jurisdiction.

OEG's reliance on *Hughes v. Talen Energy Mktg., LLC*,[319] also confirms that the PUCO's jurisdiction is preempted. Like the FERC Order, the United States Supreme Court ("Supreme Court") in *Talen* affirmed the uncontroversial point that states can support their preferred types of resources. But the Supreme Court emphasized that they can only do so through measures "untethered to a generator's wholesale market participation . . . ."[320] Here, as explained in detail in OCC's Initial Brief, the measure under consideration *is* tethered to the generations' wholesale market participation. The

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[315] Order Rejecting Proposed Tariff Revisions, Granting in Part and Denying in Part Complaint, and Instituting Proceeding Under Section 206 of the Federal Power Act, Docket Nos. EL18-187 *et al.* (June 29, 2018).

[316] *See* OEG Brief at 6-7.

[317] *See id.*

[318] *See* OCC Initial Brief at 39-47.

[319] 136 S.Ct. 1288 (2016); *see also* OEG Brief at 7.

[320] *Talen*, 136 S.Ct. at 1299; *see also* OEG's Brief at 7.

Renewable Generation Rider operates inside the PJM capacity auction, adjusting AEP's revenue by charging consumers the difference between the full cost of the power plants under the contract between AEP and the solar producer, and the wholesale revenues earned for bidding that capacity into the PJM markets.[321] Thus, as confirmed by the Supreme Court precedent that OEG itself cites, AEP's proposal is preempted.

Rather than support its cause, OEG's reliance on *Elec. Power Supply Ass'n v. Star*[322] and *Coalition for Competitive Elec. v. Zibelman*[323] are inapposite. Unlike in *Star*, the preemption issue here is not based on AEP's proposal affecting wholesale prices because it increases the power available for sale.[324] Instead, the preemption issue here is that AEP's proposal is tethered to the generations' wholesale market participation. It sets the wholesale price received by the wholesale market participant, AEP.[325] And unlike in *Zibelman*, the preemption issue here is not based on state regulation of retail sales. There are no retail sales involved in AEP's proposal. Instead, the preemption issue here is that AEP's proposal is tethered to the generations' wholesale market participation. It sets the wholesale price received by the wholesale market participant, AEP.[326]

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[321] *See* AEP Ex. 2 at 7 (Allen); *see also, In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan*, PUCO Case NO. 16-1852-EL-SSO, Opinion and Order (April 25, 2018) at 20-21; *see generally* OCC's Initial Brief at 45-46.

[322] 904 F.3d 518 (7th Cir. 2018).

[323] 906 F.3d 41 (2nd Cir. 2018).

[324] *See* OEG Brief at 7.

[325] *See* OCC's Brief at 39-47.

[326] *See id.*

VII. THE PUCO SHOULD ACCORD GREAT WEIGHT TO THE TESTIMONY OF OCC WITNESS DR. LESSER

In representing the interests of the 1.3 million residential customers in this proceeding, the OCC retained the consulting services of Dr. Jonathan Lesser, among others. Dr. Lesser is an economist that specializes in market and litigation analyses in the energy industry.[327] Dr. Lesser has over 35 years of experience in the energy utility industry working with utilities, consumer groups, competitive power producers and marketers and government entities.[328] Dr. Lesser has provided expert testimony before numerous state utility commissions, the Federal Energy Regulatory Commission, state legislative committees, and before international regulators.[329] Dr. Lesser has testified before the PUCO no less than seven times in cases involving AEP, Duke, and Dayton Power & Light.[330] Dr. Lesser holds MA and PhD degrees in economics.[331] He has co-authored three texts books: Fundamentals of Energy Regulation, Principles of Utility Corporate Finance, and Environmental Economics and Policy.[332] Dr. Lesser has considerable load forecasting experience. [333] Dr. Lesser also has significant experience with survey design and has written, as part of his text book, Environmental Economics

[327] OCC Ex. 18 at 1.

[328] *Id.*: see JAL-1.

[329] *Id.*

[330] *Id.* at JAL-2.

[331] *Id* at 2

[332] *Id.*

[333] *Id.* at 21-22.

and Policy, about surveys, their application and the different types of bias that can arise if survey questions are not written properly.[334]

Notwithstanding Dr. Lesser's impressive credentials, the Environmental advocates have mounted a personal attack against Dr. Lesser, calling for the PUCO to totally "disregard" his testimony.[335] The Environmentals' claim that "Dr. Lesser has a well-documented, 20-year record of dishonesty about climate change science, including climate conspiracy theories."[336] The Environmentals' strenuous and extreme attack on Dr. Lesser goes even beyond this case, as they call for his testimony not to be relied upon by the Commission "in any utilities (sic) proceedings, but most especially in one that pertains to renewable energy development in Ohio."[337] The Environmental advocates paint Dr. Lesser as a well-known "conspiracy theorist" and "climate denier" which they believe renders him "an abjectly unreliable witness."[338]

But the case before the PUCO is not a case about global warming or climate change. Dr. Lesser was not hired as a climate scientist to address to assess climate temperature predictions or the effects of 400 MW of renewables on the global climate. And even Sierra Club's Counsel admitted that such predictions are not relevant to this proceeding.[339] If climate change is admittedly not relevant to the proceeding, then how can Dr. Lesser's views on climate change matter? They don't.

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[334] *Id.* at 79.

[335] Environmentals' Brief at 29.

[336] *Id.*

[337] *Id.*

[338] Environmentals' Brief at 31.

[339] Tr. VI at 1596.

Dr. Lesser testified that the scope of his analysis was far more limited: "This case is about the impact on ratepayers from two specific proposed solar energy projects. And those projects, as I testify, would adversely affect ratepayers. And I also testified that the –there is no need for these two projects based on the statutory definition under 4928.143(B)(2)(c); that the Navigant study showing there were – that everyone in Ohio wants these projects is totally flawed."[340]

Moreover, all expert witnesses have biases in one way or another. Nobody's expert is free from bias. All retained experts likely have a bias in favor of the party who retained them. This does not mean their testimony is not probative or accurate. That each side has its own "hired gun" is simply part and parcel of the legal process with respect to cases like this.

Bias is simply one factor in weighing the credibility of the evidence presented. Contrary to the Environmental advocates' assertions otherwise, even if proven, bias does not preclude admission of the testimony. Rather bias goes to the weight of the evidence.[341] Witness bias does not necessarily establish the witnesses' opinions are invalid; rather it suggests a degree of caution be exercised in assigning weight to those opinions.

In this regard, the PUCO must weigh the total evidence of the record, according weight to the evidence adduced at the hearing. In its review the PUCO should give Dr. Lesser's testimony great weight given his vast experience and expertise on utility matters. And to a great degree, Dr. Lesser's testimony was not rebutted, further adding to the

[340] Tr. VI at 1622.

[341] *Cincinnati Bar Ass'n v Bailey*, 110 Ohio St.3d 223, 2006-Ohio-4360, 226.

weight it should be given. Any alleged bias against climate change, even if shown, has no bearing on the material matters before the PUCO. The PUCO should outright reject the Environmental advocates' unjustified attacks on the credibility of Dr. Lesser.

VIII. THERE IS NO NEED TO CONSIDER THIS CASE AND THE TARIFF CASES ON AN EXPEDITED BASIS ON ACCOUNT OF PRESERVING TAX BENEFITS

A. The law—R.C. 4928.143(B)(2)(c)—does not consider the availability and timing of investment tax credits for solar power plants when determining the need for power plants based on resource planning projections.

As explained in OCC's Initial Brief and elsewhere in this Reply Brief, there could be a "need" for AEP's proposed solar power plants under R.C. 4928.143(B)(2)(c) if,: (i) without the proposed power plants, customers' lights would go out, or (ii) without the proposed power plants, the utility would not be able to meet its renewable energy mandates under R.C. 4928.64.[342]

In its initial brief, AEP urges the PUCO to expedite the process of this case, including moving on to Phase II before Phase I is even decided.[343] In support of this proposal—which would be a considerable waste of parties' resources and would defeat the purpose of bifurcating the case into two phases in the first place—AEP cites the existence of the investment tax credit, which provides tax relief to the owners of solar facilities.[344]

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[342] *See* OCC Initial Brief at 9-13.

[343] AEP Brief at 79.

[344] AEP Brief at 79.

But as the Attorney Examiner has already ruled in this case, Phase I of this proceeding will address only the issue of whether there is a "need" for subsidized renewable power plants in Ohio under R.C. 4928.143(B)(2)(c).[345] The availability of tax credits is irrelevant to the question of need under the statute. The PUCO should give AEP's tax-credit-related arguments no weight in deciding whether AEP has met its burden of proving that there is a need for its proposed solar power plants under the statute. Nor should the PUCO make any findings of fact related to the availability, unavailability, or timing aspects of any such tax credits, because such findings would be outside the scope of Phase I.

B. If the PUCO does address tax credits in Phase I, it should conclude that the existence and timing of available tax credits do not support AEP's proposed power plant subsidies.

1. AEP witness Allen is not qualified to provide expert testimony on tax credits, and thus, the PUCO should give his tax credit testimony no weight.

In support of its tax-credit related arguments, AEP relies on the testimony of AEP witness Allen.[346] But Mr. Allen admitted that he has no expertise in tax issues. He admitted, unambiguously, "I'm not a tax law expert."[347] He also acknowledged that AEP employs accountants that are tax experts but that he is not one of them.[348] Further, he has never been responsible for implementing production tax credits for AEP.[349] He also

[345] Entry at ¶ 32 (Oct. 22, 2018).

[346] AEP Brief at 79 (citing AEP Ex. 3, the Direct Testimony of William A. Allen).

[347] Tr. I at 226 (Allen).

[348] Tr. I at 226 (Allen).

[349] Tr. I at 226 (Allen).

admitted that he is basing his tax opinions on the Protecting Americans from Tax Hikes Act of 2015—but that he has never even looked at this act.[350] And Mr. Allen was not familiar with the IRS's own explanation of how the tax credits in question work.[351]

Mr. Allen may be qualified as an expert on certain topics, but he admits that tax credits is not one of them. The PUCO should give no weight to his testimony regarding the availability and timing of potential tax credits.

2. There is no evidence that the proposed solar projects will be unable to begin construction before 2020.

The maximum investment tax credit (30%) is available as long as construction of the applicable power plant begins before January 1, 2020 and the plant is placed in service before January 1, 2024.[352] Yet AEP cites no evidence in its initial brief suggesting that there is any barrier to beginning construction in 2019. This is true for at least two reasons. First, nothing is stopping Hecate Energy or Willowbrook Solar from beginning construction of their proposed facilities as soon as they are approved by the Ohio Power Siting Board. Resolution of *this* case is not required for those power plant owners to begin their projects. Second, for purposes of the investment tax credit, there is no requirement that physical building of the power plants begin in 2019. Instead, the IRS offers a "safe harbor" that allows owners of power plants to benefit from the full amount of the tax credit without breaking ground.[353] Thus, while in everyday English,

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[350] Tr. I at 227-28 (Allen) ("I have not reviewed that act, that's correct.").

[351] Tr. II at 337 (Allen).

[352] *See* IRS Notice 2018-59 at 3 (administratively noticed, *see* Tr. II at 399-400).

[353] *Id.* at 14-15 (providing that construction is deemed begun if the taxpayer "pays or incurs ... five percent or more of the total cost of the energy property").

"construction" typically means physical construction, in this particular tax context, it does not. AEP ignores this critical distinction,[354] leaving one to believe that there would be a mad rush to start physically building power plants in 2019,when in fact, this is not the case.

3. The investment tax credit remains available—and valuable—beyond the end of 2019.

In its initial brief, AEP notes that the investment tax credits "phase down from their current 30% to 10% after 2021."[355] This is true, but the implication by AEP is that the tax credits drop off a cliff if the proposed power plants do not begin construction in 2019. A closer look at the numbers, however, reveals that AEP's tax credit concerns are overstated.

First, the investment tax credit remains robust after 2019. It is 26% for projects that begin construction in 2020 and 22% for projects that begin construction in 2021.[356] Second, AEP provided no evidence of the value of the tax credits (whether at the 30% level, 26% level, 22% level, or any other percentage). Thus, the PUCO is left to guess at the actual impact of this tax credit on consumers. AEP wants to scare parties into thinking that considerable tax breaks will be left on the table if construction doesn't begin immediately. This allegation is unfounded. The PUCO should not rush to make an important decision about power plant subsidies based on AEP's exaggerated tax-related claims.

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[354] *See* AEP Brief at 79-80.

[355] AEP Brief at 79.

[356] IRS Notice 2018-59 at 3 (administratively noticed, *see* Tr. II at 399-400).

IX. CONCLUSION

The General Assembly has determined to limit the instances where a monopoly can own or operate power plants. And the General Assembly has established the amount of renewable and solar energy that is required to meet Ohioan's electric needs through 2026. The PUCO must stick to the General Assembly's plan, as set forth in Ohio law. The PUCO cannot through its decisions dictate public policy; it must carry out the policy already established by the General Assembly. AEP's plan to have Ohio customers pay even more money to subsidize additional power plants is inconsistent with Ohio law. The PUCO Commissioners have to enforce the law and deny AEP's proposal, toward preserving the competitive power plant market that is bringing renewable energy to Ohioans.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of this Reply Brief was served on the persons stated below via electronic transmission this 27th day of March 2019.

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Summary: Brief Reply Brief of the Office of the Ohio Consumers' Counsel electronically filed by Ms. Deb J. Bingham on behalf of Willis, Maureen R Mrs.