

## Renewable energy, energy efficiency and advanced energy provisions in AEP and FirstEnergy PPA decisions

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For over a year, stakeholders in Ohio have vigorously debated and litigated the merits of power purchase agreements (PPAs) proposed by Ohio Power (AEP) and FirstEnergy (FE) with their respective competitive generating affiliates.

On March 31, 2016, the Public Utilities Commission of Ohio (PUCO or Commission) approved the proposals with only minimal changes.<sup>[1]</sup> This memorandum provides background of these controversial cases and summarizes the renewable and advanced energy provisions in the PUCO decisions. It should be noted that this memorandum examines only the renewable, advanced and energy efficiency issues in very comprehensive and complicated cases. In addition, the memorandum outlines a number of likely challenges to the PUCO decision.

### Background of the PPA cases

Under the PPAs approved by the Commission, both AEP and FE would purchase the capacity, energy and ancillary services produced by select generation plants owned by the unregulated affiliates. They would subsequently sell those products into the PJM markets, promising that if the cost of the output is below market, customers would receive a credit for the difference. However, if that cost is above market, customers would pay a surcharge for that difference, via a nonbypassable rider. All of the plants involved are currently operating at costs above market rates and are considered uneconomic by the utilities' unregulated affiliates.

FE's PPA involves approximately 3,500 MW of capacity, primarily from its affiliate First Energy Solutions' (FES) Davis Besse nuclear plant and its Sammis coal-fired plant. AEP's PPA included approximately 2,700 MW of coal-fired generation provided by various Ohio plants owned either exclusively by AEP Generation Resources or jointly with other companies. As approved, the terms of both PPA proposals will run for eight-years (June 2016 through May 2024).

Under these PPA arrangements approved by the PUCO, both the utilities and their unregulated affiliates would be kept whole with respect to the operation of the plants – virtually all risk of operation is transferred to the ratepayers of the utilities on a nonbypassable basis with limited PUCO regulatory oversight.

The AEP and FE PPA proposals were before the PUCO as part of stipulated settlements between the utilities, the PUCO staff, and certain parties to the cases. Both the AEP and FE stipulations contained additional commitments by the utilities intended to bring benefits to customers that may not otherwise be achievable. These commitments included promises to convert certain coal-fired units to natural gas, to implement additional energy efficiency measures over and above those required by current law and to develop additional wind and solar generation resources in Ohio. As discussed below, these commitments were approved with minimal modification.

### Renewable, energy efficiency and advanced energy provisions in the PUCO decisions

The discussion below first outlines the renewable energy commitments for AEP and FirstEnergy, respectively. Other energy efficiency and advanced energy issues present in the Commission's decisions are then discussed.

## A. AEP's renewable energy commitments

AEP Ohio and its affiliates will develop a total of at least 500 MW nameplate wind projects in Ohio – to be proposed over the course of the 4 years following the PUCO's decision and to be completed by 2021. AEP will seek retail rate recovery for these projects. Further, AEP affiliates will have the right to own up to 50 percent of these projects, but the projects will be competitively bid and AEP Ohio would enter a long term PPA for each project, procuring all of the products and attributes of the facilities.[2]

Very similar to the commitment above concerning wind energy, AEP will develop a total of at least 400 MW of nameplate capacity for "a solar project(s)" in Ohio, subject to PUCO approval and cost-recovery. In contrast to the wind procurement commitment, AEP is only required to use its "best efforts" to meet this commitment by 2021.[3] Under the approved settlements, "preference will be given to solar projects that are sited in Appalachian Ohio, create permanent manufacturing jobs in Appalachian Ohio, and commit to hiring Ohio military veterans." [4]

In its Order approving the settlement agreement, the Commission stated its preference that bilateral contracting opportunities be explored to provide support for the construction of renewables, and would only entertain a cost recovery filing if such bilateral opportunities were not available. To the end, the Commission instructed AEP to demonstrate that bilateral opportunities were explored and that a competitive process was utilized to source and determine ownership of any project to be built.[5]

In addition to these commitments, other provisions in the approved settlement involve the potential implementation of renewable energy technologies.

Under the approved settlement, AEP is to open a PUCO docket, known as the "Generation Transition" docket, by early 2017. The purpose of this docket, which will be updated annually, will be to identify and remove any remaining barriers to retiring, repowering or refueling certain co-owned PPA units.[6] To be included in this docket is a third-party analysis of plant retirement and transmission upgrade scenarios. This study is to include scenarios in which retiring capacity is replaced with 25 percent demand response, 25 percent renewables and 50 percent non-coal new generation.[7] Moreover, AEP or a third party will be obligated to analyze non-transmission solutions to any reliability problems projected to result from retirement of each unit, including energy efficiency, demand response and distributed generation resources.

In addition, AEP will have an independent third party perform an analysis about how to bring or encourage companies to establish renewable energy companies with headquarters and manufacturing plants in Ohio and how to transition the current power plant workforce to such job opportunities.[8]

## B. FE's renewable energy commitments

FE will procure at least 100 MW of new Ohio wind or solar resources. In its Order, the Commission modified the settlement to eliminate the requirement that the commitment be related to the enactment of a new federal or state environmental laws or regulations. Moreover, the Commission expressed a preference for solar:

The Commission first encourages that bilateral contracting opportunities be explored to provide support for the 100 MW of renewables. To the extent that bilateral opportunities are not available, we encourage that the cost recovery filing to be made subsequently with the Commission focus first on solar opportunities.[9]

## C. Additional advanced energy issues in the PUCO decisions

### 1. Enhanced Energy Efficient and Peak Demand Reduction Commitments

AEP commits to a goal of achieving a 1.33 percent energy savings and a .75 percent demand reduction annually over its baseline figures. This commitment is contingent upon obtaining cost recovery and lost distribution revenue recovery.

AEP will also use its "best efforts" to seek approval for energy and peak demand reductions to be used as a compliance tool under the Clean Power Plan.[10]

FE will undertake "comprehensive energy efficiency offerings" including reactivation in 2017 of all programs suspended in Case

No. 12-2190-EL-POR[11] and a goal to achieve 800,000MWh of energy efficiency savings annually.[12]

The approved settlements contain a number of provisions whereby FE will provide energy efficiency related funding specific to parties entering the settlement agreement. These include:

- \$100,000 annually for three years to the city of Akron to be used to achieve its energy efficiency and sustainability goals, to be used only for the benefit of Ohio Edison customers. These amounts will be recovered by FE from ratepayers through the Demand Side Management and Energy efficiency Rider (Rider DSE).[13]
- Contributions to COSE's Ohio Efficiency Resource Program to encourage the advancement of energy efficiency for COSE members in the amounts of \$170,000, \$25,000; \$25,000; and \$20,000 in 2016, 2017, 2018, and 2019, to be recovered through Rider DSE.[14] In addition, FE will make contributions of \$60,000 annually in 2020 through 2024.
- \$50,000 annually for 2016-2024 to encourage advancement and education of energy efficiency for members of AICUO.[15]

## 2. Grid Modernization

In its June 1, 2016, grid modernization business plan AEP will “explore avenues to empower consumers” through grid modernization initiatives, such as advanced metering infrastructure, Distribution Automation Circuit Reconfiguration, Volt/VAR optimization, removing obstacles for distributed generation, and consulting with staff on net-metering tariffs.[16] AEP will deploy Volt/VAR Optimization on 160 circuits (as opposed to current 80 circuit proposal in Case No. 13-1939-EL-RDR), to be recovered through gridSMART Phase II rider with no shared savings and no incentive ROE.[17]

In its approved settlement agreement, FE agreed to undertake a similar “grid modernization” program.[18]

## 3. Carbon Emission Reduction Plans

By the end of 2016, AEP will file a carbon emissions reduction plan. This plan will incorporate AEP's goals for transformation of its generation fleet, including reducing reliance on coal from 78 percent to 48 percent by 2026 and increasing hydro/wind/solar/pumped storage from 3 percent of generation in 2005 to 15 percent in 2016.[19]

FE will “establish a goal” to reduce CO2 emissions by at least 90 percent below 2005 levels by 2045, regardless of whether the Clean Power Plan is overturned by court order. [20] FE will report to the Commission every four years until 2045 detailing its strategy to promote fuel diversification and carbon reduction.[21]

## 4. Energy Storage/Battery Technology

AEP will include battery technology in future filings before the Commission, contingent on battery resources being eligible for inclusion in its rate base in conjunction with the provision of distribution services.[22]

FE will “evaluate” investing in battery resources contingent on PUCO approval that all such investments be rate-based.[23]

## 5. Policy Advocacy

AEP will collaborate with the Mid-Atlantic Renewable Energy Coalition (MAREC) on siting policy advocacy[24] and advocacy for a reasonable renewable portfolio standard post-S.B. 310 freeze.[25] AEP will also advocate for a reasonable efficiency portfolio standard post-S.B. 310 freeze.[26]

Lingering uncertainty – likely challenges to the PUCO decision

The PPA provisions of the Commission's decision will certainly be challenged. Under Ohio law, PUCO decisions may be directly appealed to the Ohio Supreme Court by parties in the original case, after a rehearing process. Due to the affiliate dealing and concerns about the PPA-units' impact to the wholesale market, complaints have already been filed to the Federal Energy Regulatory Commission (FERC).[27] A variety of actions by the FERC could essentially void the PUCO decision as to the PPAs. Finally, many of the opponents of the utilities' PPA arrangements argued to the Commission that the proposals were

unconstitutional and are preempted by the Federal Power Act, which gives FERC exclusive jurisdiction over wholesale electricity markets.<sup>[28]</sup> Now that the Commission has issued a decision, this theory may now be pursued in federal district court.<sup>[29]</sup>

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[1] In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into Affiliate Power Purchase Agreement for Inclusion in the Power Purchase Agreement Rider , Opinion and Order, Case No. 14-1693 (March 31, 2016) (referred herein as the "AEP Order"); In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the form of an Electric Security Plan, Opinion and Order, Case No. 14-1297 (March 31, 2016) (referred herein as "FE Order").

[2] AEP Order, at 43.

[3] AEP Order, at 44.

[4] AEP Order, at 44.

[5] AEP Order, at 83.

[6] These units are Conesville Unit 4, Zimmer Unit 1, Stuart Units 1 through 4, and the OVEC units.

[7] AEP PPA Order, at 38.

[8] Id.

[9] FE Order, at 97.

[10] AEP Order, at 40.

[11] The suspension of these programs in the first place was a result of the passage of S.B. 310, which FE strongly supported.

[12] FE Order, at 23-24.

[13] FE Order, at 15.

[14] Id.

[15] FE Order, at 16; see also FE Order, at 27.

[16] AEP Order, at 42; see also AEP Order, at 85.

[17] AEP Order, at 39.

[18] FE Order, at 22-23.

[19] AEP Order, at 41.

[20] FE Order, at 23.

[21] FE Order, at 97.

[22] AEP Order, at 42.

[23] FE Order, at 23.

[24] The setback requirements for wind turbines were made significantly more stringent in Ohio H.B. 483, passed in 2014.

[25] AEP Order, at 44.

[26] Under the Ohio S.B. 310 freeze, the renewable portfolio standard and energy efficiency requirements will automatically go

back into full effect at the end of this year unless the legislature takes specific action to the contrary.

[27] See *Electric Power Supply Association v. AEP Generation Resources, Inc.*, Docket No. EL16-33-000 (January 27, 2016).

[28] The U.S. Supreme Court is expected to rule this summer on cases involve state-mandated power contracts similar to the PPAs at issue in the PUCO decisions—the U.S. Supreme decision in these cases may be decisive on the Federal Power Act concerns raised in the FE and AEP PPA cases. See *Hughes et al. v. PPL EnergyPlus LLC et al.*, case number 14-614, and *CPV Maryland LLC v. PPL EnergyPlus LLC et al.*, case number 14-623, in the Supreme Court of the United States.

[29] In its order, the Commission opted not to address the constitutional issues raised by various opponents of the utilities' PPA arrangements, stating that such arguments “are best reserved for judicial determination.” See AEP Order, at 103.

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