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H.B. 6
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133rd General Assembly

Fiscal Note & Local Impact Statement

Click here for H.B. 6's Bill Analysis

Version: In Senate Energy & Public Utilities

Primary Sponsors: Reps. Callender and Wilkin

Local Impact Statement Procedure Required: No

Russ Keller, Senior Economist and other LBO staff

Highlights

Fund	FY 2020	FY 2021	Future Years
Nuclear Generation Fund and Renewable Generation Fund (custodial funds)			
Revenues	Gain of $85 million	Gain up to $170 million	Gain up to $170 million
Expenditures	Commensurate with revenues	Commensurate with revenues	Commensurate with revenues

Note: The state or school district fiscal year runs from July 1 through June 30 and is designated by the calendar year in which it ends. For other local governments, the fiscal year is identical to the calendar year.

- The bill creates the Nuclear Generation Fund and the Renewable Generation Fund, which will compensate electric generating facilities fueled by nuclear energy and select facilities fueled by solar energy. Beginning January 1, 2020, electric consumers will fund this program through a new charge authorized through 2026.
- Several bill provisions may affect the state and political subdivisions as purchasers of electricity. The bill lowers the annual renewable resource requirements for electric companies beginning in calendar year (CY) 2020 and repeals the existing alternative energy portfolio standard for CY 2027 and years thereafter.
- The bill reconfigures the annual energy efficiency savings benchmarks with lower cumulative compliance targets, which lowers associated costs as early as 2021.
- Beginning in CY 2020, the bill authorizes a nonbypassable, statewide charge paid by retail electric customers for the utilities' ownership stakes in the Ohio Valley Electric Corporation. The new charge will replace existing riders with the same purpose, and

continue through CY 2030. The amounts of the charge (or credit) would vary based on wholesale electric prices, but the bill limits the residential charge to $1.50 per month.

- The Ohio Air Quality Development Authority (OAQDA) will incur new costs for hiring staff to oversee the two new funds and the associated energy credits to be paid under the bill. The bill does, however, allow OAQDA and the Public Utilities Commission of Ohio (PUCO) to share staff resources and expertise to carry out the requirements of the bill. The bill provides no additional appropriations under the OAQDA budget to pay for these new costs.
- In each year beginning in 2022 and ending in 2026, PUCO must conduct a retrospective management and financial review of any owner or operator of a nuclear resource that receives payments from the Nuclear Generation Fund. If private consultants are hired to conduct or assist in the annual reviews, they may be paid from the Nuclear Generation Fund.

Detailed Analysis

Overview

H.B. 6 creates the Nuclear Generation Fund and the Renewable Generation Fund, both of which are custodial funds to be administered by the Ohio Air Quality Development Authority (OAQDA). The owner or operator of electric generating facilities in Ohio fueled by nuclear power that meet the criteria of "qualifying nuclear resource" may apply to OAQDA. The bill awards a "nuclear resource credit" worth up to $9.00 for each megawatt hour (MWh) of electricity a nuclear resource produces. Separately, OAQDA will award a "renewable energy credit" worth up to $9.00 per MWh to the owner or operator of a "qualifying renewable resource," which are generally solar energy facilities approved by the Ohio Power Siting Board (OPSB) prior to June 1, 2019. All payments from the respective funds continue to qualifying owners or operators until their facilities no longer meet the criteria specified in the bill or when the payment program terminates shortly after December 31, 2026.

The bill authorizes a new, nonbypassable charge on electric consumers of an electric distribution utility (EDU) while simultaneously reducing electric companies' compliance costs with both (1) the alternative energy portfolio standard (AEPS) required by section 4928.64 of the Revised Code and the energy efficiency and peak demand reduction (EE/PDR) benchmarks required by section 4928.66 of the Revised Code. The bill also authorizes a new "legacy generation resource" charge through December 31, 2030, which replaces existing charges paid by retail electric customers for utilities' ownership stakes in the Ohio Valley Electric Corporation (OVEC). Beginning January 1, 2020, the bill permits PUCO to replace the existing OVEC riders with a statewide nonbypassable charge to recover utilities' OVEC-related prudently incurred costs from ratepayers.

Please refer to the LSC Bill Analysis and the Substitute Bill Comparative Synopsis for a full description of the contents of H.B. 6. Following this section is a brief description and summary analysis of the bill's various fiscal effects, focusing on (1) the Nuclear Generation Fund and Renewable Generation Fund created by the bill, (2) payments to entities from the two generation funds, (3) other provisions that affect utilities and energy usage in Ohio, and (4) background information – current operations of OAQDA.

Nuclear and renewable generation funds (custodial funds)

The bill creates the Nuclear Generation Fund and the Renewable Generation Fund for the purpose of funding the energy credits under the bill. Both funds would be in the custody of the state treasurer rather than be part of the state treasury; one implication of that is that expenditures from the funds would not require appropriations by the General Assembly.

Revenues to the funds consist of charges paid by customers of electric utilities. The monthly charge varies depending on the customer type, as provided in Section 3706.46 of the bill. The monthly charges begin January 1, 2020 and end on December 31, 2026. The bill provides discretion to PUCO for establishing the structure and design of this monthly charge so that the amounts paid by customers are sufficient to produce $170 million in revenue. When designing the consumer charge, PUCO must "determine the method by which the revenue is allocated or assigned to each EDU for billing and collection, provided that the method of allocation shall be based on the relative number of customers, relative quantity of kilowatt hour sales, or a combination of the two."

Table 1 estimates the monthly charge and associated revenue using the monthly caps specified for certain customers in tandem with the bill's revenue requirements for the two custodial funds. If OAQDA later determines that reduced payments for nuclear resource credits are necessary, PUCO must make conforming reductions to the monthly charge.

Table 1. Estimated Annual Revenue Raised from Monthly Charge in H.B. 6

Customer Type	Monthly Charge	Customer Bills (per year)	Annual Revenue
Residential	Up to $0.85	50,790,393	Up to $43,171,834
Commercial and Industrial	Variable	6,531,666	Variable
Large customers*	Up to $2,400	1,764	Up to $4,233,600
Total	**N/A**	**57,323,823**	**Up to $170,000,000**

*The $2,400 monthly charge (maximum) applies to those commercial or industrial customers that exceeded 45 million kilowatt hours of electricity at a single location in the preceding year, as specified in Section 3706.46(B). The threshold is identical to the delineation used by Ohio's kilowatt-hour tax for self-assessing purchasers. LBO relied upon North American Industry Classification System (NAICS) codes provided by applicable taxpayers to identify whether these large customers would be classified as commercial or industrial customers. PUCO customer counts were modified accordingly.

H.B. 6 requires that 88.25% of the revenue from the new charge be deposited in the Nuclear Generation Fund while the remaining 11.75% of collections must be deposited in the Renewable Generation Fund, which implies that about $150 million in annual revenue would go to the Nuclear Generation Fund and about $20 million to the Renewable Generation Fund.

To qualify for credits disbursed from the Nuclear Generation Fund, an electric generating facility must be located in Ohio and fueled by nuclear power. Owners or operators of a qualifying nuclear energy resource may earn a "nuclear resource credit" equal to $9.00 per MWh, but the price may be reduced under certain conditions. Table 2 displays recent electric generation statistics for the two Ohio-based nuclear power plants. If the observed trends

continue in coming years, the owners of the two plants would not collect up to $9.00 per MWh and instead receive an amount equal to the fund's annual revenue requirement, $150 million.

Another scenario could cause nuclear plant owners to receive less than $9.00 per credit. If the "market price index" of electricity exceeds $46.00 per MWh on June 1 of a given year, the bill reduces the value of the nuclear resource credit in equal measure. For this purpose, H.B. 6 defines the market price index as the sum, expressed in dollars per MWh, of (1) projected energy prices, determined using futures contracts for the PJM AEP Dayton Hub, and (2) projected capacity prices, "determined using PJM's rest-of-RTO market clearing price." As of this writing, the futures contracts suggest energy prices will remain below $40.00 per MWh through 2026. The most recently completed capacity auction suggests the current capacity price would be about $6.00 per MWh.[1] Any downward adjustments due to the market price index will begin in June 2022 and be annually reevaluated by OAQDA. Potential credit price adjustments would affect payments for the upcoming 12-month period.

Table 2. Net Generation, in Megawatt Hours, for Ohio's Nuclear Power Plants

Calendar Year	Perry	Davis-Besse
2018	10,934,736	7,380,271
2017	9,812,376	7,875,413
2016	10,423,250	6,394,136

Source: U.S. Energy Information Administration (EIA), Form EIA-923; https://www.eia.gov/electricity/data/eia923/

Owners or operators of certified qualifying renewable energy resources may earn a "renewable energy credit" equal to $9.00 per MWh, which are payable from the Renewable Generation Fund. Section 3706.40 of the bill limits these payments to facilities with the following three characteristics: (1) use solar energy as the primary energy source, (2) obtained a certificate of environmental compatibility and public need from the Ohio Power Siting Board prior to June 1, 2019, and (3) are interconnected with the transmission grid.

Table 3 identifies solar projects that would likely qualify for disbursements from the Renewable Generation Fund. By assuming these solar projects have a capacity factor of 24.3%, which aligns with values reported in their OPSB applications, the projects' combined 1,095 megawatt (MW) nameplate capacity would produce at least 2.3 million MWh per year. If every facility owner claimed a renewable energy credit for each MWh of generation, the $9.00 value

[1] A capacity price of $5.95 per MWh equals nameplate capacity of both Ohio-based nuclear power stations (2,134 megawatts) multiplied by clearing price for 2021/2022 auction ($140 per megawatt per day). The product is multiplied by the number of days in a year (365), then converted to an MWh price by dividing the resulting number ($109 million) by the MWh output of the two plants in 2018 (18,315,007).

per credit would be prorated so the combined expenditures from the Renewable Generation Fund remain within its annual revenue requirement of $20 million per year.

Table 3. Solar Projects 50 MW or Greater Approved by Ohio Power Siting Board Prior to June 1, 2019

Solar Project Applicant	County	Nameplate Capacity	Begins Operations
Hardin Solar Energy LLC	Hardin	150	Later in 2019
Vinton Solar Energy LLC	Vinton	125	End of 2019
Willowbrook Solar I, LLC	Brown, Highland	150	Q2-CY 2020
Hardin Solar Energy II LLC	Hardin	170	Q2-CY 2020
Hillcrest Solar I, LLC	Brown	200	December 2020
Hecate Energy Highland LLC	Highland	300	Q1-CY 2021
Total	**N/A**	**1,095**	**N/A**

Note: Estimated date for commencement of operations reported by project applicant in OPSB application or company website. The 150 MW Hardin Solar Energy LLC project subsequently transferred and merged its OPSB certificate with Hardin Solar Energy II LLC's 170 MW project.

Fiscal effect on the state and political subdivisions as ratepayers

The fiscal effect on government expenditures is minimal. State agencies and local governments purchase electricity from a variety of providers, and those outside the service area of an electric distribution utility will not be affected. Refer to the map at the end of this fiscal note for a detailed illustration of EDU boundaries.

The substantial majority of, if not all, government entities within EDU territories will be classified as "nonresidential customers that are not self-assessing purchasers." Section 3706.46 of the bill directs PUCO to establish the new H.B. 6 generation charge "in a manner that avoids abrupt or excessive total net electric bill impacts for typical customers." In conjunction with this new charge, H.B. 6 potentially lowers costs associated with EE/PDR requirements as early as 2021 by reconfiguring the energy savings requirements with lower cumulative compliance targets. Moreover, the bill reduces future AEPS compliance charges by reducing the annual benchmarks in section 4928.64 of the Revised Code and simultaneously reducing the associated baseline against which compliance is measured.

Payments to entities from the two custodial funds

OAQDA's role as administrator of the funds

While the Treasurer of State is the custodian of the funds, OAQDA is charged with directing the Treasurer to use the Nuclear Generation Fund and Renewable Generation Fund. The Authority is to consult with PUCO to certify qualifying nuclear resources and renewable energy resources that qualify for a quarterly payment from the funds, and then to direct the Treasurer of State to pay the owners or operators who generated those resources. Various

provisions under the bill require OAQDA to coordinate with PUCO to set policies and rules to regulate payments from the funds and oversee other uses of the two custodial funds. The bill requires OAQDA to adopt rules to govern applications to certify qualifying resources, and also to track the megawatt hour information reported for resources.

OAQDA will incur significant new costs for implementing and overseeing the funding procedure established by the bill, including likely hiring new staff. The Authority currently employs four full-time staff. Although it is difficult to assess staffing needs under the bill at this stage, OAQDA will probably be required to hire a handful of additional employees to run the new initiative. This would potentially include a program manager, engineers, and technical experts. An attorney conversant with utility and energy law and a public information officer may also be necessary. There are also likely to be some costs at the outset for hiring technical consultants to study and develop fund usage guidelines. In addition, more office space and new supplies and equipment would likely be needed to house the program. OAQDA currently rents office space in the LeVeque Tower at 50 West Broad Street in Columbus. The bill does not include funding to cover these additional personnel or office expenses. A description of OAQDA's current duties and funding is included at the end of this fiscal note.

Some of these potential expenses could, however, be offset by a provision of the bill that allows OAQDA to make use of PUCO staff and experts per mutual arrangement between the Authority and the Commission. This provision specifies that any PUCO information, data, and equipment must be placed at the disposal of OAQDA. Overall, this may mitigate some of these additional costs that OAQDA would otherwise incur for overseeing the funding procedure.

PUCO management and financial review of nuclear resources

Beginning in 2022 and ending in 2026, the bill requires PUCO to conduct an annual retrospective management and financial review of any owner or operator of a qualifying nuclear resource that receives payments for nuclear resource credits. PUCO must complete its review no later than May 1 in each of those years. To conduct these reviews, the bill allows PUCO to retain consultants and advisors to perform all or any of the annual reviews.

Any owner or operator subject to the annual review must promptly and fully respond to any document, information, data, or other request that may be directed to its attention by PUCO or its consultants or advisors for the purpose of the review. Any material failure to timely and fully respond will result in suspension of further receipt of payments for nuclear resource credits until the failure is cured to the satisfaction of PUCO.

The cost of consultants hired to conduct or assist in these reviews may be paid from the Nuclear Generation Fund. OAQDA is to direct the Treasurer of State to pay PUCO for these purposes. It is difficult to estimate the annual payments to PUCO, which may vary substantially depending on the thoroughness and extent of the reviews and the contractors selected.

Upon completion of an annual review, PUCO is required to submit a report summarizing the findings to OAQDA and members of the Ohio General Assembly. After reviewing the report, OAQDA, in consultation with PUCO, "may cease or reduce payments for nuclear resource credits" if it determines any of the following:

- That the Federal Energy Regulatory Commission (FERC) or the Nuclear Regulatory Commission has established a monetary benefit or other incentive payment to continue the resource's commercial operation;

- The resource is no longer fueled by nuclear power;
- The resource's operator no longer maintains both a principal place of business in this state and a substantial presence in this state with regard to its business operations, offices, and transactions;
- The nuclear resource's owner or operator applies, before December 31, 2026, to decommission the resource; or
- The previously described provision about the market price index exceeding the $46.00 per MWh strike price.

Other provisions affecting utilities and energy usage

Energy efficiency and peak demand reduction charges

Generally, the current EE/PDR plans are for three years from 2017-2019, but H.B. 6 extends the current plans of applicable EDUs for a fourth year. As of this writing, at least two EDUs, AEP Ohio and Dayton Power and Light, have portfolio plans due to expire by the end of 2020, while the remaining EDUs expire at the end of 2019. For plans extended a fourth year, their approved budget must be an amount equal to the annual average of the approved budget for the current portfolio plan in effect (refer to Table 4).

Table 4. Energy Efficiency and Peak Demand Reduction Compliance Costs for 2019

Category	PUCO's Cost Cap for 2019 Compliance
AEP Ohio	$110,319,902
Dayton Power and Light	$33,022,141
Duke Energy	$38,652,074
FirstEnergy	$106,799,402
Total	**$288,793,519**

Note: PUCO's cost cap equals 4% of 2015 operating revenues.

Beginning with compliance in CY 2021, the bill revises the energy efficiency benchmarks in R.C. 4928.66. The marginal savings requirements applicable to each of those future years are replaced with a cumulative target that uses an EDU's 2021 compliance baseline as the starting point[2] and multiplies this baseline by 17.5%. This product is then compared against the sum of banked energy savings recorded by an EDU as of December 31, 2020, and cumulative energy

[2] Under continuing law, this would be a three-year average (2018-2020) or retail electric sales, as adjusted for customer opt-outs, reasonable arrangements, and weather normalizations.

savings achieved by an EDU, as determined by PUCO. If the collective achievement exceeds 17.5% of the collective baseline, then all EDUs will be deemed in full compliance with energy efficiency requirements.

Table 5 illustrates the evaluation process to be undertaken by PUCO. Since sales statistics applicable to the 2021 baseline are unavailable, the 2019 baseline is used as a proxy. However, trends show that energy efficiency baselines have generally decreased since S.B. 310 of the 130th General Assembly was enacted. Therefore, the baseline in Table 5 likely overestimates the as yet undetermined 2021 baseline. Nevertheless, if conservative assumptions are employed, the collective energy savings are nearly 93% of the utilities' statewide baseline. EDUs exceeded the annual benchmarks in prior years, so there is little reason to doubt they will bank additional energy efficiency savings in 2019 and 2020. If EDUs comply with the minimum annual savings requirements in R.C. 4928.66, they will accumulate savings equal to at least 8.2% of the baseline by December 31, 2020. For this reason, that percentage is combined alongside the banked energy savings in the fourth column of Table 5.

Table 5. Energy Efficiency Baselines and Estimated Compliance Using Available Data (all figures in MWh)

EDU	Baseline for 2019 Compliance	17.5% of Baseline	8.2% of Baseline Plus Savings Banked by December 31, 2018
AEP Ohio	37,746,600	6,605,536	8,475,757
Dayton Power and Light	12,740,800	2,229,640	2,300,046
Duke Energy	19,755,400	3,457,195	4,422,631
FirstEnergy	45,575,700	7,975,748	6,589,634
Total	**115,818,500**	**20,268,238**	**18,788,068**

Source: Baselines and banked energy savings amounts reported by Sam Randazzo to Senate Energy and Public Utilities Committee.

Based on these circumstances, it seems likely PUCO will deem EDUs in full compliance with EE/PDR baselines after the conclusion of 2020. If this does not occur, PUCO must "determine the manner in which further implementation of energy efficiency programs shall occur as may be reasonably necessary for collective achievement of cumulative energy savings equal to 17.5%, and not more," of the specified baseline.

LBO does not have a definitive estimate for the bill's changes to the energy efficiency law. Potentially, EDUs will not incur any compliance costs as early as 2021. None of the EDUs have provided public information about their expected costs for the upcoming 2% annual energy savings requirement applicable under current law from 2021 to 2027. Presumably,

banked energy savings would have a substantial role in future compliance because they are a relatively inexpensive option.

Any such estimate for existing law or the impact of H.B. 6 would be complicated by a case currently pending before the Ohio Supreme Court.[3] Presently, the court must decide whether PUCO can lawfully implement a cost cap on an EDU's EE/PDR portfolio plans equal to 4% of their 2015 electric operating revenues. Potentially, the EDUs could recover costs in excess of the PUCO-ordered cap under current law, regardless of any potential Supreme Court decision. Given the uncertainty, LBO cannot reliably estimate the costs related to this provision.

Alternative energy charges

The bill reduces annual AEPS requirements beginning in 2020 and eliminates the AEPS in its entirety for 2027 and years thereafter. The AEPS standards in current law require EDUs and competitive retail electric service (CRES) providers to rely upon renewable energy sources for a specified percentage of electricity supplied to their respective customers.

Existing law earmarks a portion of renewable resource procurement for electricity derived from solar energy. H.B. 6 removes this "carve-out" within the AEPS beginning in 2020. The most recent AEPS compliance report submitted by PUCO shows the solar energy credits to be more costly than their nonsolar counterparts. CRES providers paid a price for solar renewable energy credits that was nearly nine times the cost of nonsolar renewable energy credits.

The bill also reduces the compliance baseline for EDUs and CRES providers "to exclude the load and usage of those self-assessing purchasers." Recent statistics suggest this provision excludes 23.7 million MWh from the statewide baseline of 115.4 million MWh, which is a reduction of nearly 21%.

H.B. 6 further reduces electric companies' compliance for the amount of renewable energy generated from qualifying renewable resources receiving disbursements from the Renewable Generation Fund. For example, if the six solar projects previously identified in Table 3 produce 2.3 million MWh of electricity in CY 2021, the amount would be proportionally credited to all EDUs and CRES providers towards their CY 2022 compliance. Such an amount would account for nearly 40% of the compliance with the 2022 requirement.[4] Electric companies are prohibited from "double counting" the renewable energy from these solar projects. The bill makes those who receive disbursements from the Renewable Generation Fund ineligible for renewable energy credits under the AEPS.

By reducing the annual renewable portfolio standards and the compliance baselines for 2020 to 2026, the bill reduces (and eventually eliminates in 2027) future charges incurred by electric companies to comply with this energy sourcing standard. Table 6 displays the compliance costs in recent years, as reported by the PUCO Chairperson, Sam Randazzo. In

[3] Case No. 2018-0379.

[4] Determine statewide baseline (91.7 million MWh) by excluding self-assessing purchasers, and then multiply by 6.5% for a statewide compliance requirement of nearly six million MWh, of which 2.3 million MWh is met through six solar energy projects.

general, the compliance costs have declined since the enactment of S.B. 310 of the 130th General Assembly, which made numerous changes to the AEPS.

Table 6. Compliance Costs for Renewable Energy Standard Reported to PUCO, 2014 to 2017

Compliance Year	Renewable Resource Requirement	Solar Resource Requirement ("Carve out")	Compliance Costs
2014	2.5%	0.12%	$72,665,749
2015	2.5%	0.12%	$47,124,761
2016	2.5%	0.12%	$44,911,448
2017	3.5%	0.15%	$40,659,880

Source: Reported by Sam Randazzo to Senate Energy and Public Utilities Committee on June 5, 2019.

The AEPS rider is bypassable, which means it is paid only by Standard Service Offer (SSO) customers. Other consumers that alternatively purchase their generation supply from a CRES provider do not pay the rider. Nevertheless, CRES providers are subject to the renewable portfolio standard, so they incur charges to comply with the law. Consequently, their customers likely pay some portion of these compliance costs, albeit indirectly. CRES providers differ from EDUs in that they do not seek approval of PUCO to recover costs through a rider on customers' electric bills. H.B. 6 exempts self-assessing purchasers from both the bypassable AEPS rider levied by EDUs and the AEPS-related compliance costs incurred by CRES providers.

The bill permits an EDU that executed a contract for renewable energy resource procurement prior to April 1, 2014, to continue cost recovery on a bypassable basis through December 31, 2032. AEP Ohio has three such contracts with facilities located in Ohio and Indiana. The utility spent $18.4 million in 2018 for energy purchased from these renewable resources. Existing law permits AEP Ohio to charge its SSO customers "until the prudently incurred costs associated with [the] contract are fully recovered," whereas H.B. 6 replaces that provision with a deadline at the end of 2032.

Ohio Valley Electric Corporation charges

Beginning in CY 2020, the bill authorizes a nonbypassable, statewide charge paid by retail electric customers for the utilities' ownership stakes in the Ohio Valley Electric Corporation. The new charge will replace existing riders with the same purpose, and continue through CY 2030. In doing so, the bill extends the date by which EDUs may recover the "prudently incurred costs related to a legacy generation resource." The term refers to the EDUs' ownership stakes in two coal plants operated by the Ohio Valley Electric Corporation (OVEC). With the exception of the three FirstEnergy EDUs,[5] all other EDUs currently recover some

[5] Unlike other Ohio EDUs, the three FirstEnergy EDUs do not have direct ownership stakes as one of OVEC's sponsoring companies.

portion of their OVEC ownership costs through an existing rider authorized by PUCO. The term for each rider aligns with an EDU's Electric Security Plan (refer to Table 7).

Table 7. OVEC Electric Bill Riders Currently Approved by PUCO

EDU	Name	Expiration
Dayton Power and Light Co.	Reconciliation Rider	October 31, 2023
AEP Ohio	Power Purchase Agreement Rider	May 31, 2024
Duke Energy	Price Stabilization Rider	May 31, 2024

H.B. 6 extends this cost recovery past their current expiration dates through December 31, 2030, although some deferred costs may still be recovered from ratepayers after that date. Beginning January 1, 2020, the bill requires PUCO to establish a nonbypassable rate mechanism to all customers of all EDUs in this state. The prospective statewide rider is capped at $1.50 per month for residential customers and $1,500 per month for nonresidential customers.

The ongoing OVEC-related rider works as either a charge or a credit to an EDU's retail customers, depending on how OVEC's costs compare to the market rate. PJM Interconnection, L.L.C. ("PJM") operates a competitive wholesale electricity market where rates are set. If the revenue generated from sales to the PJM market is lower than the costs of the power, customers would pay a surcharge to make up the difference. But if the PJM market rates are higher than the power costs, customers would receive a credit on their monthly bills due to this rider.

A succinct summary of OVEC's business structure can be found in its most recent annual report filed with FERC:

> OVEC is owned by several investor-owned utilities or utility holding companies and two affiliates of generation and transmission rural electric cooperatives. These entities or their affiliates comprise the Sponsoring Companies. The Sponsoring Companies purchase power from OVEC according to the terms of the Inter-Company Power Agreement (ICPA), which has a current termination date of June 30, 2040. The proceeds from the sale of power to the Sponsoring Companies are designed to be sufficient for OVEC to meet its operating expenses and fixed costs, as well as earn a return on equity before federal income taxes. In addition, the proceeds from power sales are designed to cover debt amortization and interest expense associated with financings.

According to 2018 information reported by OVEC to FERC, the Ohio EDUs purchased a combined total of 4.1 million MWh at a cost of $220.6 million, or $53.44 per MWh. PJM reported the average price paid for power in OVEC's region was $30.61 per MWh,[6] so the Ohio EDU's could have resold their OVEC power purchases in 2018 for a loss up to $22.83 per MWh, or $94.3 million.

Table 8. OVEC Sales, in Megawatt Hours, to Ohio EDUs in 2018

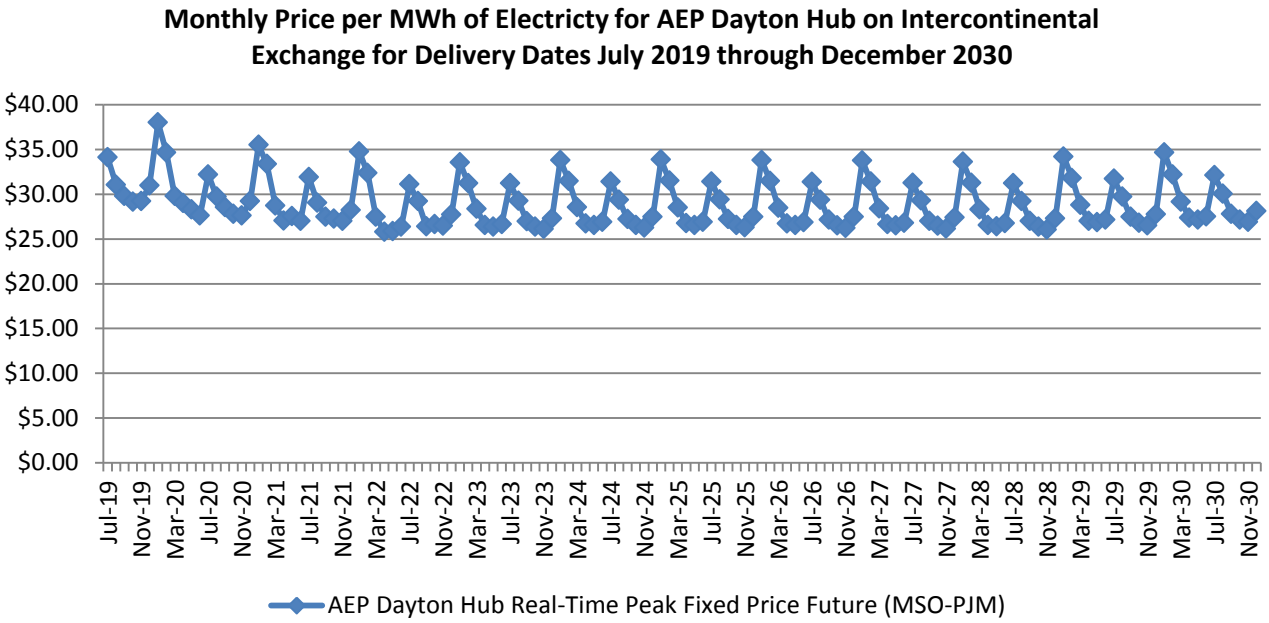
Name of Company	MWh Purchased
The Cincinnati Gas & Electric Company, "Duke Energy"	1,098,493
Columbus Southern Power Company, "AEP Ohio"	541,649
The Dayton Power and Light Company	597,927
Ohio Power Company, "AEP Ohio"	1,890,561
Total	**4,128,630**

Source: OVEC, Financial Report FERC Form No. 1, Reported Sales For Resale (Account 447)

EDUs' future losses from OVEC would depend on their revenues from reselling OVEC's output as well as their share of OVEC's debt service. The revenues associated with future energy prices for various sub-regions ("nodes") of PJM are inherently difficult to predict. According to a Duke Energy filing with PUCO, nodal prices for OVEC historically averaged 5.5% lower than the all-hours prices for the AEP Dayton Hub.[7] The more prominent AEP Dayton Hub is adjacent to the OVEC location, and futures contracts for this hub are traded on the Intercontinental Exchange (ICE). Duke Energy's filing observed that power prices for the AEP Dayton Hub since 2009 ranged from a low of $27.80 per MWh in 2016 to a high of $44.10 per MWh in 2014. The ICE futures market for electricity delivered between 2019 and 2030 (refer to chart below) suggests prices for the AEP Dayton Hub will remain within the lower half of this historical range.

[6] PJM 2018 State of the Market Report, Table 3-75 Zonal real-time and real-time, load-weighted, average LMP (Dollars per MWh): 2017 and 2018, https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2018.shtml.

[7] PUCO Case No. 17-0032-EL-AIR, *Revised Public Supplemental Testimony of Judah L. Rose on behalf of Duke Energy Ohio*, July 10, 2018.



Source: July 2, 2019 report date, https://www.theice.com/marketdata/reports/142

OVEC anticipates a variable pattern in its expected debt service over the next five years. According to its most recent Statement of Income filed with FERC, the company paid $75.5 million in interest on its long-term debt in 2018. OVEC also estimated its annual maturities of long-term debt as of December 31, 2018 (refer to Table 9).

Table 9. OVEC Annual Maturities of Long-Term Debt as of December 31, 2018

Year	Amount
2019	$179,670,116
2020	$141,387,803
2021	$244,982,570
2022	$148,800,891
2023	$69,523,395
2024-2040	$520,454,310
Total	**$1,304,819,085**

Source: OVEC, Financial Report FERC Form No. 1, Notes to Consolidating Financial Statements

Other provisions affecting PUCO

In addition to the previously described provision for a nuclear resource's annual management and financial review, H.B. 6 affects other aspects of PUCO's duties. The bill requires each EDU to file with PUCO an electric tariff applicable to county fairs and agricultural societies. The bill also provides parameters for rate design and corresponding recovery of potential revenue losses incurred by the EDU. Any marginal expenditures incurred by the agency to execute the tasks required by the bill will likely be borne by PUCO's primary revenue source, the Public Utilities Fund (Fund 5F60).

H.B. 6 grants PUCO permission to "approve a retail purchased power agreement entered into on a nondiscriminatory basis having a term of three years or more through which one or more mercantile customers commit to purchase the output of a designated [renewable energy] resource."

The bill reduces the scope of projects subject to Ohio Power Siting Board approval. The Board is funded by a line item in PUCO's operating budget. OPSB is a self-supporting entity that assesses fees on applicants to cover the cost of evaluating their proposals. The bill exempts a "small wind farm" from OPSB jurisdiction. Previously, the definition of small wind farm specified that it operate at an aggregate capacity less than 5 MW, but that distinction was eliminated by the bill. Prospectively, the bill limits OPSB authority to an economically significant wind farm with an aggregate capacity of at least 20 MW. This provision may decrease both revenue to and expenditures from the Power Siting Board Fund (Fund 5610).

Qualified energy project property tax exemption

The bill modifies requirements for obtaining an existing property tax exemption for a qualified energy project by applying them to projects with a nameplate capacity of 20 MW or more. Continuing law enables a project to be exempt from both tangible personal property and real property taxation, if such an exemption is authorized by the local board of county commissioners. Generally, the owners of a qualified energy project make a service payment in lieu of taxes (PILOT). Under current law, the PILOT option could apply to projects with a nameplate capacity of at least 5 MW. The bill raises this threshold to 20 MW and applies this change to energy projects certified by the Director of Development Services on or after the bill's effective date. Continuing law permits the Director to receive applications through December 31, 2020, for an energy project using renewable energy resources. This provision may result in greater property tax revenue for some local jurisdictions.

Public utility tangible personal property valuation

H.B. 6 makes a change to the public utility tangible personal property (PUTPP) tax valuation procedures for "a qualifying nuclear resource receiving payments for nuclear resource credits." The owner may not value such a property at less than its taxable value as of the effective date of the bill. Similarly, if the owner of such a facility petitions for a reassessment of their taxable value below its value as of the bill's effective date, H.B. 6 prohibits the Tax Commissioner from granting such a reduction.

The amount of taxes (and their related PUTPP values) paid by these facility owners is privileged information, but an analysis of PUTPP values reported for relevant taxing jurisdictions suggests the nuclear plants' PUTPP has already declined by 65% to 85% from tax year (TY) 2016

to TY 2018. Although further devaluation is possible, it is unlikely to decline to a value of $0, even if the nuclear power plants cease operations.

The recent taxable valuation decline for the two Ohio-based power stations is likely related to decisions by their ownership. In the fourth quarter of 2016, FirstEnergy Corporation recognized a noncash pretax impairment charge related to these plants (and others) in its 2016 consolidated statement of income. The valuation decline was motivated, in part, by FirstEnergy's assessment of future cash flows for the two plants. The company released a statement on March 28, 2018 indicating that both plants could close before the end of their respective operating licenses. Shortly after their asset impairment, the taxable value of these properties declined for TY 2017 and TY 2018. The Davis-Besse power station's value declined in a single year from TY 2016 to TY 2017 whereas the Perry plant devaluation occurred over a two-year period, from TY 2016 to TY 2018.

Background information – current operations of OAQDA

As noted previously, OAQDA will most likely incur new staffing costs related to oversight of the two custodial funds and potential actions associated with the annual management and financial review of those receiving payments from the Nuclear Generation Fund. The bill does not, however, provide additional funding for these purposes. Spending for OAQDA's operating expenses was just over $500,000 in FY 2019. H.B. 166, the pending main operating budget bill for the FY 2020-FY 2021 biennium, provides OAQDA with funding for operations totaling approximately $775,000 in FY 2020 and $790,000 in FY 2021. Some of the increased appropriations allow the Authority to hire one new permanent full-time employee to handle customer service and administrative duties. OAQDA's operating costs are supported by bond financing fees and a portion of air permit fees collected by the Ohio EPA.

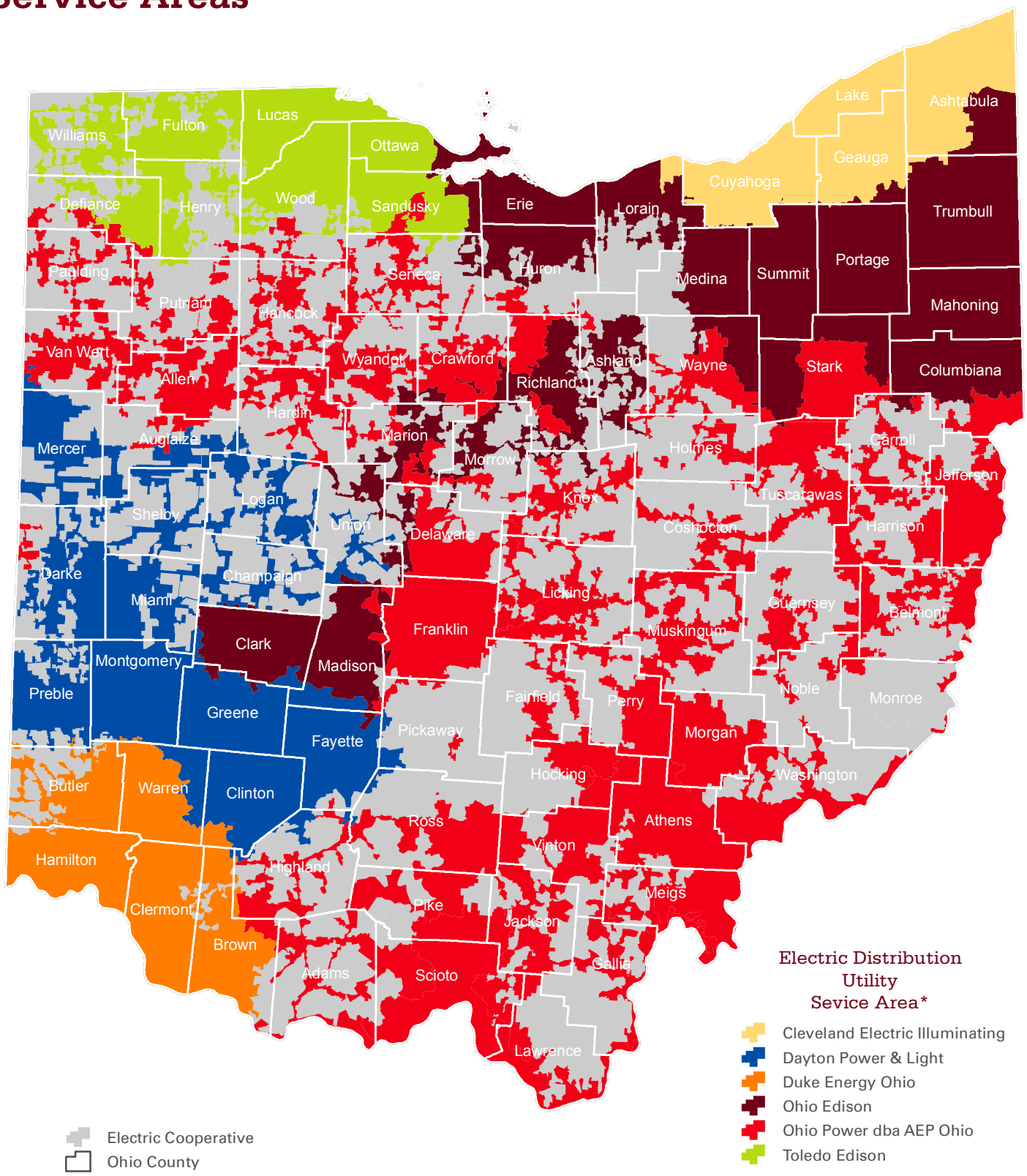
OAQDA's current role is to assist businesses, political subdivisions, and not-for-profit entities in complying with the federal Clean Air Act. Its primary function is to help with clean air project financing, issuing revenue bonds to install clean air facilities, and helping them qualify for tax exemptions on the projects. OAQDA also awards grants to small businesses to buy clean air equipment. A seven-member board governs the Authority, of whom five are paid and two serve ex officio.

Attachment: Electric Distribution Utilities – Service Areas

HB0006S2b/zg

Electric Distribution Utilities
Service Areas

Ohio



Source: Public Utitlities Commission of Ohio, shapefile https://www.puco.ohio.gov/utility-maps/electric-maps/shapefile-of-electric-service-areas/ downloaded 4/16/2019.

*Data maintained by the PUCO. Electric service areas, or certified territories, are geographic regions within which an electric distribution utility (EDU) has the obligation and exclusive right to provide electric service. EDUs do not include municipalities that maintain their own electric systems.

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