OHIO LEGISLATIVE SERVICE COMMISSION

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Fiscal Note & Local Impact Statement

Bill: H.B. 114 of the 132nd G.A. **Status:** As Introduced

Sponsor: Rep. Blessing **Local Impact Statement Procedure Required:** No

Subject: Revise state energy policy

State and Local Fiscal Highlights

- Potential forfeitures collected by the Development Services Agency's (DSA) Advanced Energy Fund (Fund 5M50) will likely be reduced in future years because the bill eliminates the compliance penalties associated with renewable energy benchmarks in all future years and penalties associated with utilities' comprehensive energy efficiency and peak-demand reduction program portfolio plans in select future years.
- The bill's provision requiring DSA to allocate 25% of the Home Energy Assistance Program (HEAP) funds for weatherization and apply for the federal waiver from the U.S. Department of Health and Human Services (HHS) to accomplish this will minimally affect FY 2017 DSA expenditures from its federally funded (Fund 3K90) appropriation item 195614, HEAP Weatherization.
- Beginning January 1, 2019, all customers, including state and local governments, may opt out of paying the alternative energy rider on their electricity bill. Therefore, applicable customers will avoid the charge associated with the provision of renewable energy resources.
- Electricity prices paid by state and local governments will be indirectly affected by the bill's modifications to utilities' comprehensive energy efficiency and peak-demand reduction program portfolio plans and its replacement of the renewable energy portfolio standard with voluntary benchmarks. These indirect effects may offset some of the savings realized from the alternative energy rider opt out provision.

Detailed Fiscal Analysis

Development Services Agency

Advanced Energy Fund

Current law provides for compliance payments assessed against electric distribution utilities (EDUs) and electric services companies (ESCs) that violate the state's renewable energy standards, energy efficiency savings requirements, and peak-demand reduction requirements. The payments must be remitted to the Public Utilities Commission of Ohio (PUCO) for deposit into the Advanced Energy Fund (Fund 5M50), used by the Development Services Agency (DSA). H.B. 114 diminishes the potential revenue streams for Fund 5M50 by: (a) making renewable energy standards voluntary, (b) limiting PUCO's compliance review of energy efficiency savings to requirements for 2016, 2019, 2022, 2025, and 2027, and (c) limiting PUCO's compliance review of peak-demand reduction to requirements for years 2016, 2019, and 2020.

HEAP Weatherization funding

The bill amends temporary law in H.B. 64, the main operating budget for the FY 2016-FY 2017 biennium, to alter how federal energy assistance funding is allocated. DSA receives these funds through the Home Energy Assistance Program (HEAP), which is overseen by the U.S. Department of Health and Human Services (HHS). The funds are primarily used for home heating assistance for households below 175% of the federal poverty line. Under current state law, 15% of the HEAP funds are set aside for weatherization projects for individuals eligible for HEAP. This 15% allocation for weatherization is allowed under HEAP guidelines; however, the federal guidelines allow states to apply to HHS for a waiver to raise the set-aside for weatherization to a maximum of 25% of all HEAP funding the state receives. H.B. 114 amends the temporary law in H.B. 64 to require DSA to allocate 25% of the HEAP funds for weatherization and apply for the federal waiver to accomplish this.

This provision will ultimately result in minimal fiscal effects for FY 2017, since DSA's HEAP funding for the fiscal year is in the process of being fulfilled, given current law, and it will take time for DSA to apply for the waiver. Any DSA expenditures resulting from this provision would be incurred from its federally funded (Fund 3K90) appropriation item 195614, HEAP Weatherization. If the 25% requirement were to continue in future years, there will be a potential increase in federal weatherization funding and corresponding decrease in the standard HEAP funding, the amount of which depends on federal funding availability.

Public Utilities Commission

H.B. 114 eliminates current reporting requirements governing what PUCO must submit to the Ohio General Assembly regarding EDUs' and ESCs' compliance status with benchmarks for renewable energy resources, energy efficiency savings, and peak-demand reduction. Beginning in 2018, the bill aligns the annual deadline for all three topics such that PUCO must submit a single report to the General Assembly no later

than August 1 of each year. The primary content of PUCO's report remains unchanged by the bill, but the bill requires the PUCO Chairperson to provide testimony on the report "to the standing committees of both houses of the general assembly that deal with public utility matters." LSC anticipates that this provision will not affect PUCO expenditures.

Direct and indirect fiscal effects through electricity costs

H.B. 114 makes the existing renewable energy portfolio standard voluntary by permitting, rather than requiring, EDUs and ESCs to provide portions of their electricity supplies from renewable energy resources, as long as their costs of providing those portions do not exceed a 3% cost cap.

The bill removes compliance provisions in current law regarding energy efficiency savings for seven of the next 11 years (2019, 2022, 2025, and 2027 remain). The bill removes the compliance provisions regarding peak-demand reduction for 2017 and 2018. PUCO enforcement resumes in 2020 to review compliance with 2019 benchmarks in continuing law.[1]

State agencies and local governments are consumers of electricity. The bill has both direct and indirect effects on these governmental expenditures. Beginning January 1, 2019, all customers, including state and local governments, may opt out of paying the alternative energy rider on their electricity bill, thereby avoiding the charge associated with the provision of renewable energy resources. The current rider amounts are shown below in Table 2. The potential avoidance of the rider and any potential increases for future years that fund these energy programs would save governmental customers money, but the savings may be indirectly offset by higher wholesale electricity prices, which are affected by the bill's impact on financial incentives for renewable resource procurement as well as the bill's modifications to EDUs' comprehensive energy efficiency and peak-demand reduction program portfolio plans (the current rider amounts for these plans are shown below in Table 5). LSC does not have a reliable source by which it can measure the indirect costs on wholesale electricity prices incurred by this bill.

In general, customers of investor-owned utilities have options when considering the supply of their electric service. For those customers who have not selected a supplier or enrolled in a government aggregation, the utilities offer a standard service offer for electric supply. These rates are determined by market prices and competitive supply auctions. PUCO, along with third-party auction managers, monitor the auction and competitive bidding process and then the auction results must be accepted by PUCO.

[1] H.B. 114 makes related changes concerning payments assessed on Ohio's EDUs and ESCs for under-compliance or noncompliance with these requirements. As described above, any forfeitures are deposited into the Development Services Agency's Advanced Energy Fund (Fund 5M50).

Renewable portfolio standards affect wholesale power markets. Load serving entities[2] may generally fulfil these obligations in one of two ways: they may use their own generation resources classified as eligible technologies to produce power or they may purchase renewable energy credits (RECs) that represent a known quantity of power produced with eligible technologies by other market participants or in other geographical locations. RECs are the tradable commodity formed by unbundling the environmental attributes of a unit of renewable energy from the underlying electricity.

Monitoring Analytics, LLC is a federally required, independent market monitor for PJM Interconnection (PJM), which is a regional transmission organization authorized by the federal government to manage the reliability of the electric transmission system and the operation of the wholesale electricity market in Ohio and all or parts of 12 other states as well as the District of Columbia. In its most recent annual report, *2016 State of the Market Report for PJM*, Monitoring Analytics, LLC observed:

> RECs, federal investment tax credits and federal production tax credits provide out of market payments to qualifying resources, primarily wind and solar, which create an incentive to generate Megawatt-hour (MWh) until the locational marginal price[3] is equal to the marginal cost of producing power minus the credit received for each MWh. The same is true for nuclear power credits, ZECs (zero emissions credits).[4] The credits provide an incentive to make negative energy offers and more generally provide an incentive to operate whenever possible. These subsidies affect the offer behavior and the operational behavior of these resources in PJM markets and thus the market prices and the mix of clearing resources.
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> RECs clearly affect prices in the PJM wholesale power market. Some resources are not economic except for the ability to purchase or sell RECs. REC markets are not transparent. Data on REC prices, clearing quantities and markets are not publicly available for all PJM states. RECs do not need to be consumed during the year of production

[2] A load serving entity secures energy and transmission service to serve the electrical demand and energy requirements of its end-use customers.

[3] Locational Marginal Prices, or LMPs, are location-specific wholesale electricity prices developed within the regional transmission organization (e.g., PJM). LMPs are often higher near load centers like cities, where demand for electric power is concentrated.

[4] Monitoring Analytics, LLC commented on zero emission credits (ZECs) because another state within the PJM jurisdiction, Illinois, recently enacted legislation that, among other things, provides subsidies, known as ZECs, for certain existing nuclear-powered generation units that indicated they would otherwise retire.

which creates multiple prices for a REC based on the year of origination. RECs markets are, as an economic fact, integrated with PJM markets including energy and capacity markets, but are not formally recognized as part of PJM markets.

Renewable portfolio standard

Continuing law sets benchmarks for renewable energy resource procurement through 2026 (refer to Table 1). The benchmarks refer to the supply of renewable energy resources obtained by EDUs and ESCs that must be provided to retail electricity customers. H.B. 114 eliminates PUCO's future duties regarding its compliance review of the renewable energy benchmarks beginning with requirements for 2017. The bill also eliminates the standards for 2027 and thereafter, which are equal to the 2026 benchmarks under current law.

Table 1. Renewable Energy Resource Benchmarks, 2015-2026 (continuing law)

By end of year	Overall renewable amount	Solar energy resources
2015	2.5%	0.12%
2016	2.5%	0.12%
2017	3.5%	0.15%
2018	4.5%	0.18%
2019	5.5%	0.22%
2020	6.5%	0.26%
2021	7.5%	0.3%
2022	8.5%	0.34%
2023	9.5%	0.38%
2024	10.5%	0.42%
2025	11.5%	0.46%
2026	12.5%	0.5%

H.B. 114 makes the continued provision of renewable energy resources subject to a cost cap. Under the bill, an EDU or ESC may not "provide a portion of its electricity from qualifying renewable energy resources if its cost of providing that portion from those resources exceeds its reasonably expected cost of otherwise producing or acquiring the same amount of electricity by three per cent or more."

Utilities recover the costs of renewable portfolio standard (RPS) requirements through alternative energy riders paid by customers. H.B. 114 permits, beginning January 1, 2019, and subject to rules that the bill requires PUCO to adopt, all customers to opt out of paying any rider, charge, or other cost recovery mechanism designed to recover an EDU's or ESC's cost of providing electricity from renewable energy resources.

EDUs and ESCs may continue levying an alternative energy rider when renewable energy benchmarks are not subject to compliance review. The monthly cost of the alternative energy rider paid by EDU customers as of February 2017 is shown in Table 2.

Table 2. Cost for Alternative Energy Rider on Average Monthly Bill by Electric Distribution Utility Service Areas (as of February 2017)

Customer Class (average usage)	AEP Ohio	Dayton Power and Light	Duke Energy Ohio	Cleveland Electric Illuminating	Ohio Edison	Toledo Edison
Rate per kWh	$0.001006*	$0.0002475	$0.000444	$0.000201	$0.000179	$0.000313
Residential (886 kWh)	$0.89	$0.22	$0.39	$0.18	$0.16	$0.28
Commercial (6,388 kWh)	$6.20	$1.58	$2.84	$1.28	$1.14	$2.00
Industrial (211,369 kWh)	$201.14	$52.31	$93.85	$42.49	$37.84	$66.16

* AEP Ohio varies the alternative energy rider rate by the customer's delivery voltage. Average monthly usage based on 2016 EIA data in its "Electric Power Monthly" publication.

The alternative energy rider is generally constant across all three customer classes, as seen in Table 2.[5]

Alternative energy riders levied by EDUs paid the cost of sourcing 806,207 kilowatt-hours (kWh) of renewable energy for 2015 requirements. Table 3 shows the renewable resource requirements to comply with Ohio's EDUs in 2015, which is the most recent year for which data is available. For 2015, the utilities' and electric service

[5] Distinctions in customer classes have been described by the U.S. Environmental Protection Agency as follows: "The residential sector includes single-family homes and multi-family housing. The commercial sector includes government facilities, and other public and private organizations. The biggest single uses of electricity in the commercial sector are lighting and heating, ventilation, and air conditioning. Electricity demand in the commercial sector tends to be highest during operating business hours; it decreases substantially on nights and weekends. Industrial customers' facilities and equipment use electricity for processing, producing, or assembling goods, including such diverse industries as manufacturing, mining, agriculture, and construction." The description was found at the website https://www.epa.gov/energy/electricity-customers.

companies (ESCs compliance is not displayed in Table 3) were required to supply 2.50% of their baseline electricity supply from renewable energy resources, of which 0.12% of their electricity supply must come from solar energy resources. The EDUs combined compliance for 2015 was met through 38,697 kWh from solar resources and 767,510 kWh from nonsolar resources.

Table 3. Renewable Portfolio Generated (in kilowatt-hours) for 2015 by Electric Distribution Utility Service Areas

Renewable Type	AEP Ohio	Dayton Power and Light	Duke Energy Ohio	Cleveland Electric Illuminating	Ohio Edison	Toledo Edison
Nonsolar	298,592	93,501	121,864	66,688	127,860	59,005
Solar	15,055	4,714	6,144	3,362	6,447	2,975
Total	313,647	98,215	128,008	70,050	134,307	61,980

Source: PUCO docketing information system, cases: 16-0707-EL-ACP, 16-0748-EL-ACP, 16-0752-EL-ACP, 16-0788-EL-ACP.

Energy efficiency and peak-demand reduction

H.B. 114 changes the existing law regarding energy efficiency and peak-demand reduction savings achieved by customers. In doing so, the bill reduces the cumulative energy efficiency savings that must be required in 2027 from 22% to 17% of the 2009 baseline measurement. The bill retains PUCO's compliance review of energy efficiency for only the requirements for years 2016, 2019, 2022, 2025, and 2027, but it eliminates PUCO's compliance review for other years. Similarly, the bill specifies that peak-demand reduction benchmarks will be reviewed by PUCO for years 2016, 2019, and 2020.[6] Finally, the bill seeks to clarify that the energy efficiency requirements terminate at the end of 2027 by repealing the language requiring savings of 2% "each year thereafter." Under current law this language might be interpreted to imply that the 2% requirement extends beyond 2027.

H.B. 114 expands the scope of programs implemented by EDUs that qualify as energy efficiency savings or peak-demand reduction. Under the bill, EDUs receive credit for implementing "energy intensity reductions resulting from heat rate improvements at electric generating plants." Separately, the bill adds to the list of savings and reductions that PUCO is required to recognize and count for the purpose of measuring and determining compliance with the energy efficiency and peak-demand reduction requirements. Refer to the LSC bill analysis for details of this expanded eligibility.

[6] Under continuing law, the peak-demand reduction programs remain through 2020.

The bill adds mercantile customers to those customers that may opt out of, and later opt back into, an EDU's comprehensive energy efficiency and peak-demand reduction program portfolio plan. The mercantile customer opt out provision is effective January 1, 2019. Under continuing law, mercantile customers include a commercial or industrial customer if the electricity consumed is for nonresidential use and the customer consumes more than 700,000 kilowatt-hours per year or is part of a national account involving multiple facilities in one or more states.

Table 4. Incremental Savings and Costs for Energy Efficiency Savings Programs and Peak-demand Reduction Reported by Utilities for 2015

Electric Distribution Utility	Energy Savings (MWh)	Peak-demand Savings (MWh)	Costs (in millions)
Cleveland Electric Illuminating Co.	179,121	37.1	$7.6
Dayton Power and Light Co.	172,766	25.2	$19.4
Duke Energy Ohio	229,257	46.3	$29.7
Ohio Edison Company	242,337	43.1	$10.6
Ohio Power Company	541,160	68.1	$61.7
The Toledo Edison Co.	103,663	16.5	$7.0

Source: Company submitted data on FORM EIA-861, https://www.eia.gov/electricity/data/eia861/index.html

Table 4 displays 2015 statistics for Ohio's utilities regarding their energy efficiency and peak-demand reduction programs. The second column shows the number of megawatt-hours saved by energy efficiency programs. Reported savings are from programs administered by the utility or otherwise provided to the utility's customers by third parties under contract to the utility, which still maintains decision-making responsibilities. Demand-side management programs run by another, unrelated entity are not included.

The third column in Table 4 displays EDUs' responses to a U.S. Energy Information Administration survey regarding peak-demand savings, which are achieved by demand response activities and measured at the time of a utility's annual system peak hour.[7] Utilities implement programs that encourage a temporary reduction in demand for electricity at certain times in response to a signal from the grid operator or market economic signals. Examples of this include: dimming of lights, turning on backup generators, or shutting down industrial processes.

Total costs incurred by EDUs (fourth column in Table 4) are inclusive of both customer incentives and all other reported costs (e.g., start-up costs incurred as part of the program).

[7] Demand response programs allow customers to be paid for reducing their electricity usage during system emergencies or periods of higher power prices.

Energy Efficiency and Peak-demand Reduction Cost Recovery Rider

H.B. 114 adds a provision to existing law governing how PUCO must calculate the energy efficiency and peak-demand reduction cost recovery rider levied by EDUs. The bill stipulates that an EDU in compliance with energy efficiency savings and peak-demand reduction requirements "shall be eligible for incentives" in any year in which the EDU can "meet or exceed the cumulative mandates." This reference could be inclusive of "shared savings," which may be recovered by EDUs from ratepayers via this rider. Shared savings is a term that is not defined in statute, but it is referenced elsewhere in the Revised Code and administrative law.[8] Under the shared savings principle, EDUs may receive a percentage of the net benefits from their over-compliance with energy efficiency or peak-demand reduction benchmarks in any given year. The absence of prescriptive methodology in law gives PUCO discretion in determining the magnitude of costs that can be recovered by EDUs via shared savings.

Continuing law allows EDUs to "bank" any amount achieved in excess of the energy efficiency and peak-demand reduction requirements, and EDUs may apply the banked savings toward achieving the energy efficiency or peak-demand reduction requirements in future years.[9]

LSC cannot reliably estimate the frequency with which this provision will be used by EDUs nor can LSC estimate the magnitude of any potential increases in the rider paid by ratepayers (illustrated only for residential ratepayers in Table 5; riders applicable to local governments and state agencies are generally lower but vary by customer class and therefore cannot be succinctly summarized in Table 5) if this provision is utilized.

Therefore, while electricity expenditures incurred by local governments and state agencies could increase, the magnitude of the potential increase is indeterminate and subject to considerable PUCO discretion.

Table 5. Cost for Energy Efficiency and Peak-demand Rider on Average Monthly Bill by Electric Distribution Utility Service Areas (as of February 2017)

Residential Customer Class	AEP Ohio	Dayton Power and Light	Duke Energy Ohio	Cleveland Electric Illuminating	Ohio Edison	Toledo Edison
Rate per kWh	$0.003117	$0.0045785	$0.003443	$0.004827	$0.00427	$0.005319
Monthly bill (886 kWh)	$2.76	$4.06	$3.05	$4.28	$3.78	$4.71

Note: Nonresidential customers often pay lower rates per kilowatt-hour on rate schedules applicable to their respective customer class. Average monthly usage based on 2016 EIA data in its "Electric Power Monthly" publication.

[8] O.A.C. 4901:1-39-07.

[9] R.C. 4928.662 in existing law moved to Section 4928.6621 under the bill.