

Senate Energy and Public Utilities Committee

Prepared Statement of Sam Randazzo

Chairman,

Public Utilities Commission of Ohio

and

Ohio Power Siting Board

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Chairman Wilson, Ranking Member Williams, Vice Chair McColley, Members of the Senate Energy and Public Utilities Committee, my name is Sam Randazzo. I currently serve the citizens of Ohio in the capacity of Chairman of the Public Utilities Commission of Ohio (PUCO) and the Ohio Power Siting Board (OPSB). I appear here today at the request of Chairman Wilson and hope to make a positive contribution to your efforts to consider Senate Bill 346 (SB 346) as it may affect current law.

My prepared statement does discuss suggestions that this Committee and the General Assembly invest time and resources in the development of a comprehensive energy policy. As witnesses have explained in testimony discussing the House's companion legislation, the policies and practices of the federal government control much of what happens inside Ohio when it comes to electricity. The same is true when it comes to the natural gas and communications sector. Also, Ohio has codified customer-centric energy policies for retail electric and natural gas services in R.C. 4928.02 and 4929.02 respectively. Similar policies have been codified for the communications sector in R.C. 4927.02. In any event, if there are questions about where Ohio stands with regard to energy policy, I would be happy to discuss them with the members of this Committee.

Section 1 What Has Happened on the Implementation Side of Amended Substitute House Bill 6 (HB 6) and Unwinding Challenges

I begin by expressing my appreciation to the Legislative Service Commission (LSC) for the quantity and quality of the information shared with the House Select Committee on Energy Policy and Oversight. I believe LSC will share the same or similar information with this Committee.. I will use the information provided by LSC as a foundation for some of the information that I will share with you today. More specifically, I will use the headings in the presentation provided by Mr. Clark to organize part of my prepared statement. For your convenience, I have attached Mr. Clark's presentation to my prepared statement as Attachment A. I will supplement the information provided by LSC based on a perspective gained from the PUCO's work on the implementation side of the law.

Payments for qualifying nuclear and renewable resources

As reported by LSC, no payments have been made to the eligible nuclear or renewable resources and no charges have been imposed on customers. The PUCO has, in accordance with the statutory requirements, established the charges customers will begin to pay starting in January 2021. The Ohio Air Quality Development Authority (OAQDA) is currently obligated to commence distribution of the revenue produced by the charges in April 2021.

As you know, the maximum monthly charges payable by customers are capped by statute. While the charges are designed to provide a target level of funding, the actual revenue collected and deposited in the two separate nuclear and renewable funds will be different just like actual tax revenue is either above or below projections. To the extent that the revenue collected is less than the target, OAQDA will reduce the amount of the payout accordingly. To the extent that the revenue collected is in excess of the target level, the excess will reduce future funding levels. Current law includes

reconciliation mechanisms to ensure that the total amount collected from customers and paid to the eligible resources will not exceed \$170 million per year over the term of the program.

Representative Greenspan's testimony before the House Select Committee on Energy Policy and Oversight two weeks ago brought some attention to provisions in current law that are not typically noticed and I commend him for his education effort. More specifically, I am referring to the audit requirements in current law that are attached to the opportunity for eligible nuclear resources to obtain the \$9 credit. As you may recall, this committee inserted the version of the audit provisions that became law.

Beginning in 2021, current law requires the PUCO to perform an annual retrospective management and financial audit of the owner/operator of the nuclear resources receiving the credits. The PUCO is currently developing the RFP to select an independent auditor to perform the first retrospective audit (audit of 2020) in 2021.

Current law requires the PUCO to provide OAQDA and General Assembly with a report of the audit results and recommendations. The PUCO must also make the report available to the public. Based on these audit results and recommendations and in certain circumstances, OAQDA has the discretion to reduce or eliminate the \$9 credit payment (with current law providing for corresponding reductions in customer charges). As Representative Greenspan explained, it appears that OAQDA may not reduce or eliminate the \$9 credit simply because one or both of the nuclear resources do not require financial assistance to continue their zero emitting electricity production. Current law does permit OAQDA to eliminate or reduce the \$9 credit if the Federal Energy Regulatory Commission (FERC) or the Nuclear Regulatory Commission (NRC) has established a monetary benefit or other incentive payment to continue commercial

operation.¹ So, there is some recognition in current law of how financial need for the \$9 credit might be affected by federal assistance programs.

For what it may be worth, the June 2020 US House Majority Staff Report submitted to the House Select Committee on the Climate Crisis contains the following statement and recommendation:

Nuclear power is a zero-carbon source of electricity that made up 20% of the nation's electricity generation in 2019 and more than half of all zero-carbon electricity. The nuclear power sector supported more than 70,000 jobs in the United States in 2019.

Above, the majority staff for the Select Committee recommends that Congress establish a federal clean energy standard that would allow electricity generated from existing nuclear power plants to qualify for credits.²

To the extent the General Assembly acts—and I take no position on this one way or the other—to modify current law to more clearly or comprehensively allow the \$9 credit and corresponding customer charges to be reduced based on a financial need assessment, I believe this could be accomplished by making relatively modest adjustments to current law. Moving in this direction might also be accompanied by modifications to current law to defer any cash payment for the credits and the imposition of the customer charges to fund the credits until the financial need has been assessed through the retrospective audit process.

¹ As currently structured, FERC's latest version of the minimum offer price rule (MOPR) as it may be triggered by "state subsidy" eligibility would not, in my view, be triggered by the availability of federal support payments.

² "Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America," pg. 46, available at: <https://climatecrisis.house.gov/sites/climatecrisis.house.gov/files/Climate%20Crisis%20Action%20Plan.pdf>.

Nuclear and renewable resource credit program

While customer charges and cash distribution will not occur until next year, current law allows eligible resources to earn credits in 2020 based on the megawatt hours (MWH) of production. Current law calls for the credits earned in 2020 to be redeemed beginning in 2021 at a maximum rate of \$9 per MWH which is \$0.009 per kilowatt hour (kWh), or nine tenths of one cent per kWh. While SB 346 repeals the credit program, the bill does not address explicitly what some may argue is a credit redemption obligation created by current law.

Monthly customer charges

As noted above, the monthly customer charges have been established but they will not go into effect until the beginning of 2021.

Nuclear Generation and Renewable Generation Fund

As already explained, these fund credits are currently being earned by eligible resources, but the cash redemption of these credits does not commence until April 2021.

Renewable energy benchmarks

The lessened or eliminated compliance requirements of current law are in effect and are being observed by competitive retail electric service (CRES) providers and electric distribution utilities (EDUs) based on compliance benchmarks applied to their respective retail sales. SB 346 would restore the higher compliance mandates for 2020 (6.5% versus 5.5% renewable, with 0.26% versus 0% specifically from solar). SB 346 does not

address the potential non-compliance hardship imposed on CRES providers and EDUs from the change to a higher compliance requirement for calendar year 2020 nine months into the year.

To the extent the General Assembly elects to restore the renewable resource purchase obligation mandate that existed in prior law, I recommend that some consideration be given to providing a transition period to avoid the abruptness and hardship discussed above. Also, current law allows some of Ohio's largest electricity users to opt out of the renewable resource purchase mandate and reversing this status (returning to prior law) will likely require some transition thinking/planning as well.

Renewable energy compliance reduction

Current law calls for the MWH production from the solar projects receiving credits from OAQDA to be counted towards compliance with the renewable portfolio mandate. Since customers would be paying for the credits for the solar projects, current law recognizes that customers get the benefit of the renewable production associated with the credits by, in effect, reducing the amount of the renewable mandate compliance for which customers would otherwise be required to pay. In more practical terms, this crediting against the renewable compliance mandate protects customers against being "double dipped". This reduction in the renewable compliance mandate related to the production from the benefited solar facilities would be eliminated by SB 346.

Renewable energy credit: double counting prohibition

Current law allows a renewable resource certified by the PUCO to obtain a renewable energy certificate (REC) for each MWH of electricity generated. RECs have been part of Ohio law since 2009 and, because of their market-based convenience, are the primary means of compliance with the renewable mandate.

RECs are sold or otherwise used to capture value in the marketplace based on the value assigned by willing sellers and buyers. This REC commerce provides a secondary market, a virtual means for renewable resources to obtain financial support and an opportunity for customers who wish to buy RECs to meet their renewable technology preferences, sustainability or other goals.

Because current law provides an opportunity for some solar projects to obtain up to \$9 per MWH, current law also precludes getting both the \$9 credit and a REC. This provision in current law eliminates the potential for double dipping that might otherwise exist. SB 346 would continue current law which allows renewable resources to seek and obtain RECs, and remove the double dipping protection since the proposed legislation eliminates the \$9 credit.

For what it may be worth, Ohio-eligible renewable resource REC prices have recently been in the \$8 to \$10 per MWH range. Based on this price range, solar resources in Ohio can obtain financial support from Ohio's REC program in about the same dollar amount as provided by the per MWH credit that is available as a result of HB 6. As explained above, HB 6 precludes obtaining financial support from both the REC opportunity and the HB 6 credit.

Cost recovery

Current law allows an EDU to pass on to customers, through a bypassable charge, the costs associated with certain legacy contracts which the EDU entered into prior to 2015 for the purchase of the output of renewable resources. These contracts were entered into after generation supply became a competitive service. In this context, a bypassable charge is a charge that can be avoided by customers that obtain their generation supply (the competitive service) from a CRES provider serving as a generation supplier rather than from an EDU. Current law limits the time an EDU can transfer these above-market legacy contract costs to customers.

SB 346 would remove the above-market cost recovery time limitation in current law and allow the transfer of above-market costs to continue until all the costs are fully recovered. SB 346 does not address the potential for the duration of this cost transfer to be extended by the EDU by modifying and extending the term of these legacy contracts. This contract extension potential can be observed in the case of other legacy generation contracts associated with the Ohio Valley Electric Corporation (OVEC).

Energy efficiency benchmarks & cumulative energy savings determinations

SB 346 would restore the higher energy efficiency (EE) mandates in prior law. This bill would also restore the uncertainty regarding the duration of these mandates and the duration of the resulting charges paid by customers. Current law addresses a duration ambiguity that was in prior law by ending the mandates and the charges by a date certain.

Current law calls for an end to the EE mandates when the PUCO determines that the aggregate statewide EDU compliance hits 17.5% as measured against the applicable kWh compliance baseline.

The PUCO continuously monitors the level of EE compliance as adjusted for the compliance baseline changes required by current law. Based on that review, it is clear the 17.5% threshold will be met and exceeded in 2020. Accordingly, on February 26, 2020, the PUCO directed the EDUs to begin winding down their energy efficiency programs on September 30, 2020 and to terminate the mandated programs on December 31, 2020. EDUs have made business decisions regarding employment levels and human resource allocations based on current law and this wind down process, as has the PUCO.

When current law reduced the mandated compliance levels and provided for a certain end date, it also provided for a transition for EDUs that did not have approved compliance plans to extend them through the end of 2020. SB 346 increases and

extends the mandated compliance levels and the costs that will be paid by customers. However, the bill does not address the somewhat challenging logistics associated with getting compliance plans in place to meet the higher and extended compliance mandates beginning in 2021. The process to get these compliance plans approved can include informal stakeholder meetings, formal hearings before the PUCO, and potential appeals to the Supreme Court of Ohio.

Given the transitional realities presented by reverting to the higher, longer and more expensive EE mandate shortly before 2021 and the fact that stakeholders have made adjustments to their human and other resource allocations based on current law, I don't think it is possible, in a practical sense, to put the toothpaste back in the tube in the timeframe implicit in SB 346. The procedural requirements associated with establishing new EE mandate compliance plans, if nothing else, make it challenging to revert to prior law without an appropriate transition period and transition plan.

[Discontinuance of energy efficiency cost recovery mechanism upon full compliance](#)

As already explained, current law ends the mandated compliance obligation on EDUs for EE programs as of a date certain, December 31, 2020. Current law also ends the charges customers are compelled to pay as a result of the mandates at the same time, subject to a limited extension as may be necessary to reconcile or zero out any prior period over or under recovery. The steps the PUCO has taken to wind down the compliance programs should help to minimize the extent to which any charges continue into 2021.

SB 346 would restore the charges made necessary by the mandated compliance requirements; and, because of the escalation in the compliance required in 2021 relative to 2020 (a jump from 1% to 2%) it is reasonable to expect that the mandate charges paid by customers will increase significantly in 2021. It is also reasonable to expect that the logistical challenges associated with reverting to prior law in the short

amount of time available prior to the start of 2021 will contribute to the escalation in the costs that will be passed on to customers. Haste makes waste, as they say.

I will discuss the compliance cost experience and all the categories of cost that are reflected in this experience later in my prepared statement.

Reporting requirement for customers that opt out of portfolio plans (mandate compliance plans) & mercantile customer opt out

Current law streamlines the opportunity for mercantile customers (defined as non-residential customers consuming above 700,000 kWh per year or part of a national account involving multiple facilities³) to opt out of the EE mandate compliance plans. SB 346 would revert to the more complicated opt out process contained in prior law. It is important to note that both current law and prior law called for the EE compliance baseline to be adjusted to remove opt-out customers' kWh from the compliance baseline. This adjustment is necessary to avoid transferring to other customers the compliance obligation created by the opt-out customers' kWh. During 2020, mercantile customers have utilized the streamlined opt out process in current law, and the associated baseline adjustments have been implemented. If the law reverts to the more complicated opt-out process, SB 346 is silent on what is to be done regarding the streamlined opt outs that have already taken place and the corresponding baseline adjustments that have already been made. It is reasonable, in practical terms, to expect that, upon reversion to prior law, mercantile customers would become subject to a mandate-imposed competitive disadvantage and the total compliance baseline that would otherwise occur under current law would be greater. All of this trends toward higher mandate costs payable by customers and particularly Ohio businesses.

³ R.C. 4928.01(A)(19).

Legacy generation resource recovery (OVEC)

SB 346 would eliminate language in current law that provides EDUs with the right to pass on to customers the above-market costs associated with their contracts, as extended, with legacy generation resources which, as defined, are the generation resources owned and operated by OVEC. Current law allows EDUs to recover eligible above-market costs, contains limits on the amount of legacy generation costs that can be included in a customer's monthly bill, excludes any allowance for a return on equity, spreads the cost to customers of all EDUs, requires prudence audits by the PUCO and time limits the recovery period to December 31, 2030, subject to a reconciliation period to account for over or under recovery.

Prior to current law, the PUCO authorized above-market OVEC costs to be recovered from the customers of three EDUs. This recovery was included within the electric security plan (ESP) for each of the three EDUs with no caps on customers' monthly charges. Because these OVEC-related charges were part of the ESPs, I believe it is reasonable to assume that the duration of the charges would have been the same as the duration of the ESPs.

SB 346 does not address questions about how the repeal of the provisions governing cost recovery for OVEC would or would not restore the prior PUCO-approved OVEC-related charges. If the prior PUCO-approved recovery mechanisms are restored for the three EDUs that had them, then the customers of the three EDUs would see an electric bill increase effective with the restoration, and customers of the other EDUs would see this charge eliminated (a bill decrease).

Agreements for customer-sited renewable energy resources

Current law allows EDUs to enter into a contract with a mercantile customer or group of mercantile customers to construct a customer-sited renewable energy resource in Ohio that is primarily used to meet the electricity needs of the customer provided that the

project is not subsidized by other customers. SB 346 would eliminate this provision in current law but does not address the implications for projects that may have already been commenced based on current law.

Decoupling

Under prior law, the PUCO approved decoupling mechanisms for three EDUs.⁴ Current law allows the EDUs without a decoupling mechanism to establish a mechanism based on procedural and substantive details laid out in the law. This aspect of current law has been implemented.

SB 346 would eliminate some of the decoupling enabling language in current law (while not affecting other decoupling enabling language as described by LSC during the presentation to the House Select Committee). Thus, the aggregate effect of a repeal on the decoupling provision in R.C. 4928.471 is unclear. Does the decoupling mechanism the PUCO approved under that statute terminate? Do the EDUs that did not have a decoupling mechanism under prior law get to request PUCO approval of a decoupling mechanism if current law is repealed? What happens to the money the EDU collected from customers under the decoupling mechanism approved under that statute? If the decoupling mechanism approved under the statute requires the EDU to refund money to customers and current law is repealed, does the EDU get to keep the money?

Wind farms of 5 – 20 megawatts (MWs) and net metering systems using wind under 20 MW

As LSC explained to the House Select Committee, HB 6 reduced the certification jurisdiction of the OPSB for wind turbine generation projects less than 20 MW if the projects are primarily dedicated to providing electricity to a single customer. This means that land use regulation associated with these projects occurs at the local level as is the case with most land use regulation. Current law also includes a

⁴ Decoupling mechanisms have also been approved for Ohio natural gas local distribution companies.

complementary change to Ohio's net metering eligibility and measurement requirements. SB 346 eliminates these changes but does not address the implications for any projects that may have moved forward under current law (and did not come before the OPSB for certification). From prior testimony, it is my understanding that the largest wind turbine generator employer in Ohio (based in Findlay) will be affected by repealing these provisions.

It is worth noting that this law may be considered applicable to wind turbine generator projects serving a single retail or wholesale customer, as the word "customer" is not defined. For your information, I have attached (Attachment B) my recent letter to Chairman Wilson and Ranking Member Williams of this committee, responding to a question they raised regarding this subject.

[Rate schedule for county fairs and agricultural societies](#)

Under the law prior to HB 6, the PUCO approved EDU rate schedules applicable to some customers including county fair boards and agricultural societies. These rate schedules included a rate structure or design that created something like a take or pay obligation for customers. This rate design feature had a significant financial impact on customers that used most of their electricity in a relatively short period of time (one month, for example). As a result, their annual electric bills were affected significantly by this limited period of high use rather than the actual billing quantities in a particular month.

Current law requires the PUCO to address this billing impact of the previously approved rate design as it relates to county fairs and agricultural societies, and the PUCO has completed this work.

SB 346 repeals the county fair and agricultural society rate design reform but is silent on the implications for the replacement rate design that is now in place (perhaps with added significance as a result of the impact of COVID-19 on county fairs and

agricultural societies). If the repeal of current law occurs and these customers are required to return to the otherwise applicable rate, it is reasonable to expect that the financial hardship these organizations attributed to the prior rate structure will return.

Home energy assistance programs

Current law enables use of a higher percentage of federal Home Energy Assistance Program (HEAP) dollars for weatherization services provided within the scope of the federal program.

SB 346 repeals this provision thereby reducing the opportunity to direct greater HEAP dollars towards weatherization.

Property tax exemption for energy projects

As a result of changes made to the jurisdiction of the OPSB over wind turbine generator projects less than 20 MW, current law includes a complementary adjustment to the tax provisions contained in R.C. 5727.75.

As with the other changes applicable to wind turbine generator projects less than 20 MW, SB 346 returns R.C. 5727.75 to its prior version. SB 346 does not address any implications of the repeal on the level of taxes that will be due or are levied but are not payable until after the repeal.

Tangible personal property (TPP)

As a result of issues associated with the market value of Ohio's nuclear plants and their potential closure, the tax valuation of the plants was an evolving and potentially contested issue. In light of the nuclear support opportunity in current law, current law also disallowed any future reduction in TPP valuation for tax purposes for a nuclear plant receiving support.

SB 346 would repeal the tax valuation certainty provided by current law and restore the valuation uncertainty that existed previously.

Section 2: Mandate Compliance Cost History 2014-2019

I have attached (Attachment C) a summary of the EE and PDR mandates compliance cost history for the period 2014 through 2019. During that period, the annual cost of compliance ranges from \$230,466,762 (2015) to \$301,491,496 (2019). This summary also includes the cost categories that are included for purposes of determining how much customers must pay for the mandated compliance. This summary shows that for this period, customers were charged and paid more than \$1.6 billion because of the EE/PDR mandates. Of that total, \$408,712,280, more than 25%, was included to increase the profit or earnings of the EDUs in the name of “shared savings”. Shared savings is the label that has been attached to the incremental profit opportunity provided to EDUs largely as a result of the PUCO’s approval of requests from stakeholders supporting the mandates. Other than a brief mention of “shared savings” in the law governing EDUs’ electric security plans⁵, there is nothing in current or prior law that specifically allows this component to be included in or excluded from the costs passed on to customers for EE/PDR programs. This component was essentially created on the implementation side of the law.

Based on the data used to produce this cost summary, the per unit average cost of compliance ranges from a low of \$0.09 per kWh of compliance in 2016 to a high of \$0.17 per kWh of compliance in 2019. The average per kWh cost of compliance over the entire period is between \$0.15 and \$0.16 per kWh. As indicated earlier, the cost to customers of the nuclear credits would be \$0.009 per kWh, or nine tenths of one cent per kWh.

⁵ R.C. 4928.143(B)(2)(h).

SB 346 would restore the EE/PDR mandates as they existed in prior law meaning that the 1% of baseline compliance EE requirement in 2020 would double to 2% in 2021 and the rate of escalation in each year thereafter would stay at 2% to achieve cumulative compliance in excess of 22% by the end of 2027.

Returning to prior law and reinstating the escalation in the compliance percentage that occurs in 2021 will result in the cost of compliance and customer charges escalating significantly. To the extent the General Assembly reverts to prior law in this area, I recommend some consideration be given to eliminating the cost to customers created by “shared savings”, moderating the escalation in the compliance percentage and putting a maximum charge limit in place so customers know their tab for mandate compliance cost will not exceed a specified dollar amount in any month. Other stakeholders have, from time to time, made recommendations to remove the compliance process from the control of EDUs and they may bring these recommendations (and likely many others) to your attention as part of this process.

As LSC explained to the House Select Committee, attempts to quantify any customer benefits arising from the mandates involve a lot of assumptions, as is the case with the operation of any avoided-cost model. I am well aware of efforts to portray these EE programs as having been determined to cost effective, but I am also aware of the perils associated with substantiating these claims.

Before discussing the efforts to portray these EE programs as being cost effective, I think it may be helpful to put these claims in their logical context. To the extent that these programs are cost effective, it is reasonable to expect that customers will act on energy efficiency opportunities irrespective of the mandates. The cost effectiveness claims also imply that energy efficiency programs can stand on their own in the market without the extra cost burdens and “red tape” associated with the government and other systems that have been created to comply with the mandates. Also, utility sponsored energy efficiency programs exist now without being compelled by the force of mandates

and it is reasonable to expect that voluntary programs will be available in the future even if the mandates terminate at the end of this year.

There is no statutory requirement that the compliance programs be cost effective; there is language in the PUCO rules that has been cited as supporting this requirement. Here is the text of the PUCO rule:

Each electric utility shall demonstrate that its program portfolio plan is cost-effective on a portfolio basis, based on the total resource cost test. In general, each program proposed within a program portfolio plan must also be cost-effective, although each measure within a program need not be cost-effective. However, an electric utility may include a program within its program portfolio plan that is not cost-effective pursuant to the total resource cost test when that program provides substantial non-energy benefits or the electric utility can demonstrate that an alternative cost test is more appropriate.⁶

The language in the rule makes it clear that each EE program does not have to be cost effective. Cost effectiveness is to be measured based on the entire package of programs. Thus, customer dollars are not focused just on cost effective programs.

The rule calls for use of the “total resource cost” test to measure cost effectiveness. This test measures cost effectiveness in the aggregate from the perspective of an EDU’s entire service territory.

There are other cost effectiveness tests that could also be used to measure costs depending on a desired outcome. For example, there is the “ratepayer impact test” that measures cost effectiveness from the point of view of utility customers and considers the impact on customers not participating in the compliance programs. The benefits of these compliance programs are typically enjoyed by a relatively small percentage of customers while all customers pick up the tab. And since electricity is inherently in interstate commerce and any demand impacts of retail EE programs affect, absent

⁶ Ohio Adm. Code 4901:1-39-04(B)

congestion, prices in the entire PJM footprint, any wholesale market price benefits of these programs paid for by Ohio customers are enjoyed by customers in and outside Ohio that do not pay for these programs.

There is the “utility cost test” which measures cost effectiveness from the perspective of the sponsoring utility.

There is the “participant test” that measures cost effectiveness to customers participating in the compliance programs.

I could go on.

Thus, there are a variety of cost effectiveness tests and the cost effectiveness numerical score may swing significantly depending on which test you select. And I have not even begun to explore with you the implications of the mismatch between modeled and actual results that occurs because of the mismatch between the values assigned to model input variables (such as the price of natural gas or others reflecting economic conditions) and actual input values during the period modeled.

The total resource cost test results also ignore all of the costs mandated compliance imposes on customers such as “shared savings” (about 25% of the total) and the out of pocket costs incurred by customers that participate in the programs.

The PUCO’s human and other resource intensive EE processes involve a five-year review of the energy savings claimed by EDUs (PUCO Case No. 19-020-EL-UNC). As part of this process, a third-party independent auditor was selected to review the compliance programs for program years 2014 – 2018. An audit report was filed and the PUCO requested and received comments on the audit report. As a result, the Office of Consumers’ Counsel (OCC) filed comments on July 1, 2020 raising material questions about the scope and quality of the audit report. The Commission takes the issues raised by OCC seriously and it needs to address next procedural steps and, eventually,

resolve the issues. Until we conclude this work, I caution against making conclusions based on the information EDUs have submitted to the PUCO. And even if OCC's claims turn out to be without merit—and I am not suggesting they will—the above-described vagaries that enter the picture when avoided-cost and cost-effectiveness models are in play will remain.

As a concession to my geekiness, I will quibble a bit with LSC's cautioned reference in the House Select Committee to economic theory and the potential of energy efficiency to shift the demand curve to the left, thereby reducing wholesale energy prices. To appreciate the limits of this theory you need to spend a good deal of time in the trenches where the sausage of wholesale market design is made, remade and then remade again (I don't recommend it).

For example, in determining how much supply it needs for both planning (long-term) and operational (real-time) reliability purposes, PJM attempts to recognize the effect of energy efficiency in its specification of demand. If PJM is a perfect predictor (and nobody is), there should be little or no impact on wholesale prices. The theory has already been considered in specifying the demand curve that drives wholesale prices.

The PJM market design allows energy efficiency to qualify as a "capacity resource" (like an electricity generator). Capacity resources submit offer prices to PJM, to be selected through a competitive bidding process, for receipt of capacity payments. When energy efficiency is transformed into a capacity resource, PJM "adds back" the demand reduction impact of energy efficiency to the demand of the customer providing the energy efficiency capacity resource (avoids, theoretically, double dipping by an energy efficiency resource; alternatively you cannot be a supply side resource and also use energy efficiency to reduce demand).

Turning to the cost of the “renewable”⁷ portfolio mandate, the annual cost of compliance during the period 2014 through 2019 ranges from \$72,665,749 (2014) to \$40,648,394 (2017) with a total cost of \$320,718,264 for this period and an annual average cost of \$53,453,044. These cost amounts are shown on Attachment D to my prepared statement. This mandate applies to both EDUs and CRES providers. During the period 2014 through 2019, the EDUs’ cost of purchasing renewable attributes to comply with the portfolio mandate ranges from \$0.018 to \$0.050 per kWh and the CRES providers’ estimated⁸ cost ranges between \$0.006 and \$0.015 per kWh.

The EE and renewable mandate compliance costs paid by customers for the period 2014 through 2019 total \$1,947,872,480.

Section 3: Renewable and Other Generation Development Activity in Ohio

As current law was being debated, some stakeholders claimed its enactment would squash interest in renewable generation project development in Ohio. We now have some actual experience and I offer some information below on what is now occurring under current law.

I have attached to my testimony (Attachment E) a map showing the utility scale (50 MW or above) solar generating projects that: 1) have been approved; 2) have been approved and are under construction; and, 3) are currently pending before the OPSB. Additionally, from the pre-filing discussions that occur between the OPSB staff, ably

⁷ As in other states, Ohio law defines the word “renewable”. R.C. 4928.01(A)(37)(a). As defined, it includes solar, solar thermal, wind energy, hydroelectric, geothermal, fuel derived from solid waste, biomass, energy produced by specified cogeneration technology, biologically derived methane, heat captured from other specified types of energy, energy derived from non-treated by-products of the pulping or wood manufacturing process, fuel cells used to generate electricity, methane gas emitted from abandoned coal mines, a storage facility that will promote better utilization of renewable energy or a distributed generation system used by a customer to generate electricity from any renewable energy.

⁸ Unlike EDUs that report compliance renewable mandate compliance cost as part of the rider-based cost collection process, CRES providers do not report their cost of compliance to the PUCO. A proxy cost estimate was used by the PUCO to calculate the annual cost of compliance for CRES providers.

lead by Executive Director Theresa White, we know there are a lot more of these projects on their way to the OPSB. As these additional projects make application to the OPSB, this map will be updated.

Based on information reported for the region, Ohio is either ranked as number 1 or number 2 in PJM for having the most solar projects including those involving the use of battery storage (hybrid solar).⁹

And this renewable buildout is occurring in Ohio at a time when there is already a significant amount of underutilized generating capacity (capital assets) in the PJM footprint. And, there is much more generating capacity taxiing to the runway even though there is little or no growth in demand. Under Ohio law, electricity generation is a competitive service and generation facilities secure market share and compensation from the market.

I have also attached (Attachments F and G) similar maps for wind turbine generator projects 5 MW and above and natural gas fired generation projects 50 MW or greater.

These maps are available with additional detail at the OPSB website and, again, they are updated periodically to reflect more current information.

Conclusion

Through my prepared statement and attachments, I've attempted to shed some light on conditions as they exist under current law and provide additional context that may be useful as you consider the legislation before you.

I hope the information in my prepared statement is useful and I will do what I can to respond to your questions recognizing that I will not be able to discuss pending cases.

⁹ <https://insidelines.pjm.com/new-subcommittee-focuses-on-hybrid-resource-needs/>

HOUSE SELECT COMMITTEE ON ENERGY POLICY AND OVERSIGHT

September 10, 2020





www.lsc.ohio.gov

OHIO LEGISLATIVE SERVICE COMMISSION

Wendy Zhan, Director

Office of Research
and Drafting

Legislative Budget
Office

H.B. 746 of the 133rd General Assembly repeals H.B. 6 of the 133rd General Assembly. The table below addresses the H.B. 6 provisions being repealed and the possible effect on the law of its repeal.

Repeal of H.B. 6 provisions by topic	Effect of repeal
Payments for qualifying nuclear and renewable resources	
Repeals the in-state nuclear and renewable resource payment to qualifying nuclear resources (an electric generating facility in Ohio fueled by nuclear power) and qualifying renewable resources (an electric generating facility in Ohio that (1) uses or will use solar energy as its primary energy source, (2) obtained a major utility facility certificate from the Power Siting Board before June 1, 2019, and (3) is interconnected with the electric transmission grid subject to the control of the regional transmission organization, PJM Interconnection, L.L.C.) (<i>R.C. 3706.40, 3706.55, and 3706.59</i>).	Removes these provisions from law. Because H.B. 6 enacted them as new law, there is no previous law to which to revert.
Nuclear and renewable resource credit program	
Repeals the nuclear resource credit program, including the application for, the issuance of, and the payment for, nuclear resource credits administered primarily by the Ohio Air Quality Development Authority (the Authority) and the review of the qualifying resources that receive payment for the nuclear credits.	Removes these provisions from the law. Because H.B. 6 enacted them as new law, there is no previous law to which to revert.

Repeal of H.B. 6 provisions by topic	Effect of repeal
<p>Repeals the similar renewable resource credit program, including the application for, the issuance of, and the payment for, renewable resource credits administered primarily by the Authority (<i>R.C. 3706.40 to 3706.65</i>).</p>	
Monthly customer charges	
<p>Repeals the per-customer monthly charges that an electric distribution utility (EDU) must collect starting January 1, 2021, and ending on December 31, 2027, to subsidize the credit payments to qualifying resources, which in the aggregate produce \$150 million annually for payment of nuclear resource credits and \$20 million annually for payment of renewable resource credits (<i>R.C. 3706.46</i>).</p>	<p>Removes these provisions from law. Because H.B. 6 enacted them as new law, there is no previous law to which to revert.</p> <p>Under H.B. 6, the charges billed by an EDU must be authorized by the Public Utilities Commission (PUCO). The repeal would remove authorization for the charge, which if not repealed, would be (1) for residential customers, no more than \$0.85 per month, (2) for industrial customers eligible to be self-assessing purchasers, no more than \$2,400 per month, and (3) for nonresidential customers that are not self-assessing purchasers a charge that avoids abrupt or excessive total net electric bill impact for typical customers.</p>
Nuclear Generation and Renewable Generation Funds	
<p>Repeals the Nuclear Generation Fund and Renewable Generation Fund into which customer charges collected by EDUs are deposited (<i>R.C. 3706.49 and 3706.53</i>).</p>	<p>Removes these provisions from law. Because H.B. 6 enacted them as new law, there is no previous law to which to revert.</p>
Renewable energy benchmarks	
<p>In the law requiring EDUs and electric services companies to provide a portion of their electricity supply from renewable energy resources, repeals the changes that set the benchmark at 8.5% by the end of 2026 with no further renewable resource requirements thereafter.</p> <p>Repeals the elimination of the solar energy benchmark component after 2019 and the compliance payment provisions for noncompliance with the solar benchmarks in 2020 and thereafter.</p>	<p>Reverts to prior law and revives the previous benchmarks that were in effect that required 12.5% (including a 0.5% solar energy portion) of the electricity supply to be from renewable energy resources by 2027 and each year thereafter.</p> <p>Reverts to prior law and revives the \$200 compliance payment for 2020 and revives, for subsequent years, a payment reduced by \$50 each year through 2026 to a minimum of \$50.</p>

Repeal of H.B. 6 provisions by topic	Effect of repeal
<i>(R.C. 4928.64(B)(1) and (2) and (C)(2)(a).)</i>	
Renewable energy compliance reduction	
<p>Eliminates the reductions in compliance with the renewable energy benchmarks that are:</p> <ul style="list-style-type: none"> ▪ Based on kilowatt hours produced by qualifying renewable resources (in-state solar, described above) eligible to apply to the Authority for renewable energy credits; ▪ Based on the load and usage of mercantile customers that are self-assessing purchasers <i>(R.C. 4928.642 and 4928.644(B)).</i> 	<p>Removes these provisions from law. Because H.B. 6 enacted them as new law, there is no previous law to which to revert.</p>
Renewable energy credit: double counting prohibition	
<p>Eliminates the prohibition against a qualifying renewable resource (in-state solar, described above) getting both a renewable energy credit through application to the Authority and a renewable energy credit under continuing law <i>(R.C. 4928.645(C)).</i></p>	<p>Removes this provision from law. Because H.B. 6 enacted this provision as new law, there is no previous law to which to revert.</p>
Cost recovery	
<p>Repeals the provision that allowed cost recovery associated with a contract executed before April 1, 2014, to procure renewable energy resources through a bypassable charge only to the end of 2032 <i>(R.C. 4928.641).</i></p>	<p>Revives prior law that allowed an EDU to recover costs through a bypassable charge for such a contract <i>until the associated costs are fully recovered.</i></p>
Energy efficiency benchmarks	
<p>Repeals the benchmark limitation of 8.2% in annual energy efficiency savings for each EDU by the end of 2020, with no future benchmark requirements. <i>(R.C. 4928.66(A)(1)(a)).</i></p>	<p>Reverts to prior law that requires (1) the annual energy efficiency savings requirement to be an additional 2% increase each year after 2020 until 2027 and (2) the cumulative energy efficiency savings requirement to be in excess of 22% as of 2027.</p>
Portfolio plan termination	

Repeal of H.B. 6 provisions by topic	Effect of repeal
<p>Repeals the modification of portfolio plans to extend to, and then terminate, or to simply terminate, on December 31, 2020 (<i>R.C. 4928.66(F)</i>).</p>	<p>With regard to portfolio plans that were set to terminate before December 31, 2020, under pre-H.B. 6 law, the repeal of H.B. 6 has an unknown effect. There may be uncertainty about how they would be treated. Administration and regulation of other portfolio plans presumably would be governed by continuing law and pre-H.B. 6 law.</p> <p>Riders are currently in place for required energy efficiency programs. AEP Ohio has submitted a proposed voluntary program for 2021 to PUCO.¹ Duke Energy Ohio proposed a voluntary program to PUCO, but subsequently withdrew it.²</p>
Cumulative energy savings determination	
<p>Repeals the provisions that determine cumulative energy savings using the cumulative threshold of 17.5% for all EDUs collectively, with the result that: (1) meeting or exceeding the threshold leads to full compliance with the energy efficiency requirements, and (2) failing to meet the threshold requires PUCO to determine how and when full compliance will be achieved (<i>R.C. 4928.66(G)(1) and (2)</i>).</p>	<p>Removes these provisions from law. Because H.B. 6 enacted them as new law, there is no previous law to which to revert.</p>
Discontinuance of energy efficiency cost recovery mechanism upon full compliance	

¹ Information about AEP Ohio's proposed demand side management program to PUCO is available at: <http://dis.puc.state.oh.us/TiffToPDF/A1001001A20F15B15113J01296.pdf> and <http://dis.puc.state.oh.us/TiffToPDF/A1001001A20F01B00853B00020.pdf>, accessed on September 6, 2020.

² Duke Energy Ohio's application, PUCO action, and Duke's subsequent withdrawal of its proposed energy efficiency program is available at: <http://dis.puc.state.oh.us/TiffToPDF/A1001001A20F03B53856H00298.pdf>, <http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=eebfd946-1e14-40b7-a4fe-6746b8def3d9>, <http://dis.puc.state.oh.us/TiffToPDF/A1001001A20F17B43712F01599.pdf>, <http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=2d643e50-88a2-4c8e-89f6-a41a7d57f4e8>, and <http://dis.puc.state.oh.us/TiffToPDF/A1001001A20F26B55050I03419.pdf>, accessed on September 6, 2020.

Repeal of H.B. 6 provisions by topic	Effect of repeal
<p>Repeals the provision that discontinues existing energy efficiency cost recovery mechanisms if full compliance with energy efficiency savings is deemed achieved (by meeting the 17.5% threshold or PUCO determination of full compliance) (<i>R.C. 4928.66(G)(3)</i>).</p>	<p>Removes this provision from law. Because H.B. 6 enacted this provision as new law, there is no previous law to which to revert.</p>
Reporting requirement for customers that opt out of portfolio plan	
<p>Revives by re-enacting the provision repealed in H.B. 6 regarding (1) energy intensity reduction reports that certain high-volume electric customers that opted out of an EDU's energy efficiency/peak demand reduction portfolio plan were required to submit to PUCO and (2) PUCO authority to suspend a customer's opt-out if it did not achieve the energy intensity identified by the customer (<i>R.C. 4928.6616</i>).</p>	<p>Reverts to prior law, thereby reviving the reporting requirement and PUCO's authority to suspend the opt-out until the customer can achieve the cumulative reduction in energy intensity.</p>
Mercantile customer opt out	
<p>Repeals the provision allowing mercantile customers to opt out and later opt back in to an EDU's energy efficiency/peak-demand reduction portfolio plan (<i>R.C. 4928.6610</i>).</p>	<p>Removes this provision from law and therefore prohibits mercantile customers from opting out or in to an EDU's portfolio plan. If any mercantile customers have opted out under this provision before its repeal, it is unclear how the repeal would affect the continuation of the opt out for these customers.</p>
Legacy generation resource cost recovery	
<p>Repeals provisions related to cost recovery of a legacy generation resource (which are generating facilities owned directly or indirectly by a corporation formed prior to 1960 by investor-owned utilities for the original purpose of providing power to the federal government for use in the nation's defense or in furtherance of national interests, including the Ohio Valley Electric Corporation (OVEC)).</p>	<p>Removes these provisions from law. Because H.B. 6 enacted them as new law, there is no previous law to which to revert. It is not clear, however, whether reversion back to any preexisting OVEC cost recovery mechanism approved by PUCO prior to the effective date of H.B. 6 would occur as a result of a repeal of this provision. Legacy generation cost recovery riders have been in place since January</p>

Repeal of H.B. 6 provisions by topic	Effect of repeal
<p>Repeals the requirement that any preexisting PUCO-authorized mechanism for retail recovery of prudently incurred costs related to a legacy generation resource must be replaced with a nonbypassable rate mechanism that is:</p> <ul style="list-style-type: none"> ▪ Approved by PUCO for recovery of those costs through December 31, 2030 (subject to final reconciliation); 	<p>2020.³ The repeal removes the authority for the imposition of the rider.</p>

³ Legacy Generation rider information and other rider information appears in EDU rate schedules available on the PUCO website page, “Tariffs: Utility and Telecom,” <https://puco.ohio.gov/wps/portal/gov/puco/documents-and-rules/tariffs#page=1>, accessed on September 6, 2020.

The Duke Energy Ohio rate schedule is available at:

<https://puco.ohio.gov/static/empliibrary/files/docketing/tariffs/Electric/Duke%20Energy%20Ohio%20-%20Electric/PUCO19%20Schedule%20of%20Rates,%20Classifications%20Rules%20and%20Regulations.pdf>.

The Cleveland Illuminating Company rate schedule is available at:

<https://puco.ohio.gov/static/empliibrary/files/docketing/tariffs/Electric/The%20Cleveland%20Electric%20Illuminating%20Company,%20FIRSTENERGY/PUCO13%20Schedule%20of%20Rates%20for%20Electric%20Service.pdf>.

The Dayton Power & Light rate schedule is available at:

<https://puco.ohio.gov/static/empliibrary/files/docketing/tariffs/Electric/The%20Dayton%20Power%20and%20Light%20Company/PUCO%2017Distribution.pdf>.

The Ohio Edison Company rate schedule are available at:

<https://puco.ohio.gov/static/empliibrary/files/docketing/tariffs/Electric/The%20Ohio%20Edison%20Company,%20FIRSTENERGY/PUCO%2011%20Schedule%20of%20Rates%20for%20Electric%20Service.pdf>.

The Ohio Power Company rate schedule is available at:

<https://puco.ohio.gov/static/empliibrary/files/docketing/tariffs/Electric/Ohio%20Power%20Company/PUCO%2020%20Standard%20Service.pdf>.

The Toledo Edison Company rate schedule is available at:

<https://puco.ohio.gov/static/empliibrary/files/docketing/tariffs/Electric/The%20Toledo%20Edison%20Company,%20FIRSTENERGY/PUCO8%20Schedule%20of%20Rates%20for%20Electric%20Service>.

Repeal of H.B. 6 provisions by topic	Effect of repeal
<ul style="list-style-type: none"> ▪ Collected from all customers of Ohio EDUs; ▪ Capped at a \$1.50 per month charge or credit for residential customers and \$1,500 per month charge or credit for all other customer classes. <p><i>(R. C. 4928.01(A)(41) and (42) and 4928.148.)</i></p>	
Agreements for customer-site renewable energy resources	
<p>Repeals the provisions permitting an EDU to enter into an agreement with a mercantile customer, or group of mercantile customers, to construct a customer-sited renewable energy resource in Ohio that would provide the mercantile customer or group with a material portion of their electricity requirements <i>(R.C. 4928.47)</i>.</p>	<p>Removes this provision from law. Because H.B. 6 enacted this provision as new law, there is no previous law to which to revert.</p>
Decoupling	
<p>Repeals the decoupling provision which gives an EDU the ability to file an application to implement a decoupling mechanism for calendar year 2019 and each calendar year thereafter.</p> <p>Under the decoupling mechanism, the base distribution rates for residential and commercial customers is decoupled to the base distribution revenue and revenue resulting from implementation of</p>	<p>Removes this provision from law. Because H.B. 6 enacted it as new law, there is no previous law to which to revert.</p> <p>A decoupling rider (known as “Conservation Support Rider”) has been in place for FirstEnergy customers since February 2020.⁴ The repeal removes the authority for the imposition of the rider.</p>

⁴ The Cleveland Illuminating Company rate schedule is available at:

<https://puco.ohio.gov/static/emplibrary/files/docketing/tariffs/Electric/The%20Cleveland%20Electric%20Illuminating%20Company,%20FIRSTENERGY/PUCO13%20Schedule%20of%20Rates%20for%20Electric%20Service.pdf>.

The Ohio Edison Company rate schedules are available at:

<https://puco.ohio.gov/static/emplibrary/files/docketing/tariffs/Electric/The%20Ohio%20Edison%20Company,%20FIRSTENERGY/PUCO%2011%20Schedule%20of%20Rates%20for%20Electric%20Service.pdf>.

Repeal of H.B. 6 provisions by topic	Effect of repeal
the energy efficiency and peak demand reduction requirements, excluding program costs and shared savings, and recovered pursuant to an approved electric security plan, as of the 12-month period ending December 31, 2018 (<i>R.C. 4928.471</i>).	
Wind farms of 5-20 megawatts (MWs)	
Repeals amendments that subjected wind farms of 5, but less than 20, MWs to local control (<i>R.C. 303.213, 519.213, 713.081, and 4906.13</i>).	Revives pre-H.B. 6 Power Siting Board jurisdiction over all wind farms of at least 5 MWs.
Net metering system using wind under 20 MWs	
Repeals the change in the definition of “net metering system” that allows an industrial customer-generator’s net metering system to meet the requirement that the system was intended primarily to offset the customer-generator’s electricity requirements if the system: (1) has a capacity of less than 20 MWs, (2) uses wind as energy, and (3) it was sized so as to not exceed 100% of the customer-generator’s annual requirements for electric energy at the time of interconnection (<i>R.C. 4928.01(A)(31)(d)</i>).	Removes this qualification and revives the pre-H.B. 6 definition of “net metering system” so the described industrial customer-generators would not qualify.
Rate schedule for county fairs and agricultural societies	
Repeals the requirement that EDUs file a new rate schedule with PUCO for county fairs and agricultural societies that includes either (1) a fixed monthly service fee or (2) an energy charge on a kilowatt-hour basis (<i>R.C. 4928.80</i>).	Removes this provision from law. Because H.B. 6 enacted it as new law, there is no previous law to which to revert. The new rate schedule has been implemented by some EDUs. The repeal removes the authority for this rate schedule.

The Toledo Edison Company rate schedule is available at:

<https://puco.ohio.gov/static/emplibrary/files/docketing/tariffs/Electric/The%20Toledo%20Edison%20Company,%20FIRSTENERGY/PUCO%20Schedule%20of%20Rates%20for%20Electric%20Service>.

Repeal of H.B. 6 provisions by topic	Effect of repeal
Home energy assistance programs (HEAP)	
<p>Repeals the requirement that the Director of Development Services to annually (starting in FY 2021) submit a federal waiver request for the state to spend 25% of HEAP funds for weatherization services allowed under federal law (<i>R.C. 4928.75; Section 5 of H.B. 6</i>).</p>	<p>Removes this provision from law. Because H.B. 6 enacted it as new law, there is no previous law to which to revert.</p>
Property tax exemption for energy projects	
<p>Repeals the ability of larger-scale energy generation projects to be exempted from property taxation without approval of the board of county commissioners.</p> <p>Repeals the ability of a board to condition a tax exemption on payments in lieu of taxes (PILOT) only if a project has at least 20 MWs. (<i>R.C. 5727.75; Section 4 of H.B. 6</i>.)</p>	<p>Removes these changes and revives pre-H.B. 6 law regarding the property tax exemption for energy projects.</p>
Tangible personal property (TPP)	
<p>Repeals the provision that disallowed any future reduction in the taxable value of TPP of an electric company that receives payments for nuclear resource credits (<i>R.C. 5727.231</i>).</p>	<p>Removes this provision from law. Because H.B. 6 enacted it as new law, there is no previous law to which to revert.</p>



Power Siting Board

Mike DeWine, Governor
Sam Randazzo, Chairman

Board Members
Director, Ohio Environmental Protection Agency
Director, Ohio Development Services Agency
Director, Ohio Department of Health
Director, Ohio Department of Natural Resources
Director, Ohio Department of Agriculture
Public Member
Ohio House of Representatives
Ohio Senate

Honorable Senator Steve Wilson
Ohio Senate District 7
Chair,
Energy and Public Utilities Committee

Honorable Senator Sandra R. Williams
Ohio Senate District 21
Ranking Minority Member,
Energy and Public Utilities Committee

Re: Reply to Letter Dated August 28, 2020

Dear Chair Wilson and Ranking Member Williams:

The purpose of this letter is to reply to your letter dated August 28, 2020 regarding R.C. 4906.13.

As you stated, R.C. 4906.13 was amended effective October 22, 2019. The amendment was part of Substitute House Bill 6, 133rd General Assembly (HB 6).

Ohio law provides the specifications for determining whether a generation project is subject to the jurisdiction of the Ohio Power Siting Board (OPSB). Any electric generating project that is a "major utility facility" (50 megawatts or more) is subject to OPSB jurisdiction (R.C. 4906.01 and 4906.04). In addition, R.C. 4906.13(A) contains the definition of "economically significant wind farm," which provides the size threshold used to determine whether a wind turbine generator project that is smaller than a "major utility facility" is subject to local control or must be certificated by the OPSB.

If a wind turbine generator project is subject to OPSB's jurisdiction, no construction or operation can commence until the OPSB makes the findings required by R.C. 4906.10 and authorizes the issuance of a certificate. And, when a project is subject to the OPSB's jurisdiction, "... [n]o public agency or political subdivision ... may require any approval, consent, permit, certificate, or other condition for the construction or operation of [an] ... economically significant wind farm authorized by a certificate issued" by the OPSB (R.C. 4906.13(B)).

Prior to the HB 6 change to R.C. 4906.13, the definition of "economically significant wind farm" included all "... wind turbines and associated facilities with a single interconnection to the electrical grid and designed for, or capable of, operation at an aggregate capacity of five or more megawatts but less than fifty megawatts." HB 6 created an exception to the definition of

an economically significant wind farm, which is contained in the third sentence of R.C. 4906.13(A):

The term [economically significant wind farm] also excludes one or more wind turbines and associated facilities that are primarily dedicated to providing electricity to a single customer at a single location and that are designed for, or capable of, operation at an aggregate capacity of less than twenty megawatts, as measured at the customer's point of interconnection to the electrical grid.

To fall within the above-stated exception to the OPSB's jurisdiction, the wind turbine(s) and associated facilities must be:

- Primarily dedicated to providing electricity to a single customer at a single location; and,
- Designed for, or capable of, operation at an aggregate capacity of less than twenty megawatts as measured at the customer's point of interconnection to the electrical grid.

Thus, a determination of what wind turbine projects are exempt from OPSB's jurisdiction because of the change to R.C. 4906.13(A) requires that factual determinations be made. If the answer to the questions of fact is "yes", then the project is exempt from OPSB jurisdiction and subject to whatever local control may apply. Please note that an exemption from the OPSB's jurisdiction does not relieve the project of permitting, licensing, leasing or other requirements administered by the jurisdictional local, state or federal agencies. For example, a project that is exempt from the OPSB's jurisdiction may need to secure road use permits from a county engineer, and a project to be constructed on land owned or controlled by the State of Ohio, whether the land is submerged or not, may still need to meet the requirements of such agencies as the Ohio Department of Natural Resources (ODNR).

With regard to the factual determinations that must be made to determine which projects might fall within the exemption in R.C. 4906.13(A), I offer the following observation.

There is no specific definition or meaning supplied in the statute for the following words or phrases:

- Primarily dedicated to providing electricity to a single customer;
- Customer;
- Measured at the customer's point of interconnection to the electrical grid.

Since the exemption added to R.C. 4906.13(A) is relatively new, there are no OPSB or court decisions that address the meaning of these words and phrases. However, absent indications in a statute to the contrary, words and phrases are typically defined by reference to their ordinary meaning. Thus, it is reasonable to expect that the above words and phrases would have their ordinary meaning recognizing, for example, that within an energy context, the word "customer" generally means either a wholesale or retail customer.

The point of measurement included in the exemption language (customer's interconnection to the electrical grid) is, in my view, significant because it looks to the aggregate capacity or capability at the point of grid interconnection rather than at the generators themselves. I mention this because it is not uncommon for the output capability of generators measured at the grid interconnection point to be less than, for example, the aggregate capability specified by summing the name plate rating of each of the project's wind turbine generators.

In your letter, you requested input on "...whether a wind farm, which has an aggregate capacity of less than twenty megawatts and which is primarily designed to supply electricity to a single customer at a single location, may be constructed without obtaining a certificate from the Ohio Power Siting Board...". It is important to recognize that I am but one member of the Board, this question has not been put to the Board and any answer by the Board would require resolution of the factual questions described above. That being said, it is my view that a project of the type you described in your request for input may qualify for the exemption pursuant to R.C. 4906.13(A). As already stated, it is also my view that any exemption from the OPSB's jurisdiction would not affect the authority of other local, state or federal agencies or negate requirements that must be met as a result of laws and regulations other than those associated with R.C. Chapter 4906.

Of course, should the General Assembly modify R.C. 4906.13 to remove the exemption or redefine any of the words or phrases discussed above, such revisions may alter the availability or scope of the exemption in R.C. 4906.13(A).

I hope this reply is responsive to your request.

Respectfully submitted,



Sam Randazzo

EE Costs for All EDUs: 2014-2017

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>SUM</u>	<u>ANNUAL AVG</u>
Program Costs	\$ 186,328,699	\$ 149,637,560	\$ 143,167,834	\$ 191,881,695	\$ 671,015,788	\$ 167,753,947
Shared Savings	\$ 79,344,990	\$ 69,634,490	\$ 82,682,575	\$ 53,820,545	\$ 285,482,600	\$ 71,370,650
ELR Program Discounts	\$ 30,412,852	\$ 29,386,636	\$ 29,405,725	\$ 34,681,837	\$ 123,887,050	\$ 30,971,762
Capital Costs	\$ -	\$ -	\$ -	\$ 207,950	\$ 207,950	\$ 51,988
IRP-D Credit	\$ -	\$ -	\$ -	\$ 19,337,751	\$ 19,337,751	\$ 4,834,438
Market Offset	\$ (2,907,793)	\$ (18,191,923)	\$ (19,672,304)	\$ (13,065,640)	\$ (53,837,660)	\$ (13,459,415)
Total	\$ 293,178,747	\$ 230,466,762	\$ 235,583,830	\$ 286,864,138	\$ 1,046,093,478	\$ 261,523,370

EE Costs for All EDUs: 2018-2019

	<u>2018</u>	<u>2019</u>	<u>SUM</u>	<u>ANNUAL AVG</u>
Program Costs	\$ 187,488,125	\$ 194,683,688	\$ 382,171,813	\$ 191,085,907
Shared Savings	\$ 55,819,826	\$ 67,409,854	\$ 123,229,680	\$ 61,614,840
ELR Program Discounts	\$ 32,151,857	\$ 33,258,000	\$ 65,409,857	\$ 32,704,929
Capital Costs	\$ 734,152	\$ 294,522	\$ 1,028,674	\$ 514,337
IRP-D Credit	\$ 15,989,442	\$ 15,321,593	\$ 31,311,035	\$ 15,655,518
Market Offset	\$ (12,614,160)	\$ (9,476,161)	\$ (22,090,322)	\$ (11,045,161)
Total	\$ 279,569,242	\$ 301,491,496	\$ 581,060,738	\$ 290,530,369

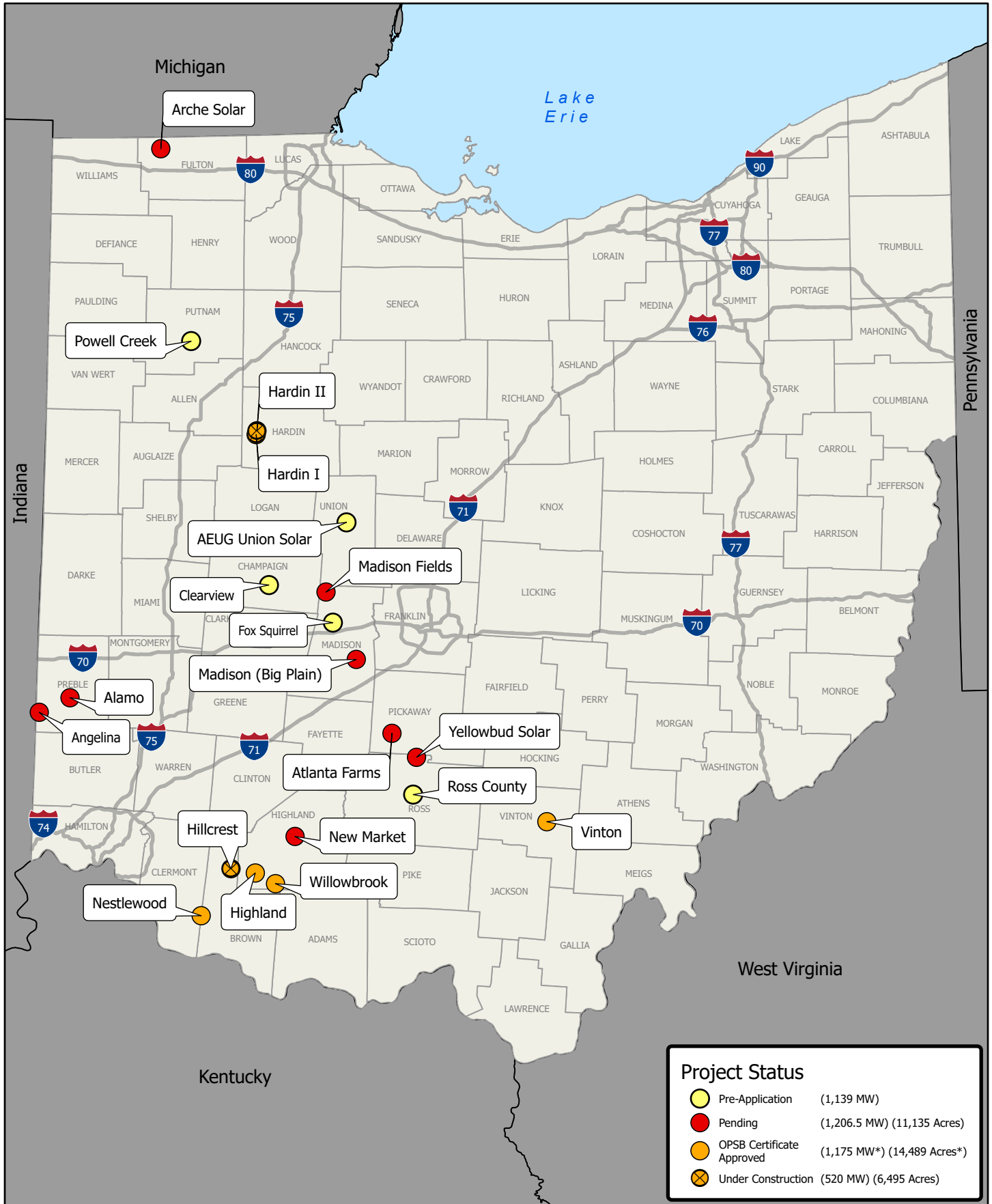
EE Costs for All EDUs: 2014-2019

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Cumulative Total</u>
Program Costs	\$ 186,328,699	\$ 149,637,560	\$ 143,167,834	\$ 191,881,695	\$ 187,488,125	\$ 194,683,688	\$ 1,053,187,601
Shared Savings	\$ 79,344,990	\$ 69,634,490	\$ 82,682,575	\$ 53,820,545	\$ 55,819,826	\$ 67,409,854	\$ 408,712,280
ELR Program Discounts	\$ 30,412,852	\$ 29,386,636	\$ 29,405,725	\$ 34,681,837	\$ 32,151,857	\$ 33,258,000	\$ 189,296,907
Capital Costs	\$ -	\$ -	\$ -	\$ 207,950	\$ 734,152	\$ 294,522	\$ 1,236,624
IRP-D Credit	\$ -	\$ -	\$ -	\$ 19,337,751	\$ 15,989,442	\$ 15,321,593	\$ 50,648,786
Market Offset	\$ (2,907,793)	\$ (18,191,923)	\$ (19,672,304)	\$ (13,065,640)	\$ (12,614,160)	\$ (9,476,161)	\$ (75,927,982)
Total	\$ 293,178,747	\$ 230,466,762	\$ 235,583,830	\$ 286,864,138	\$ 279,569,242	\$ 301,491,496	\$ 1,627,154,216

*The charts above do not include costs associated with lost distribution revenues.

	EDU Totals	CRES Totals	Total
2014	\$42,304,038.84	\$30,361,710.39	\$72,665,749.23
2015	\$22,923,129.88	\$24,201,631.14	\$47,124,761.02
2016	\$21,351,724.45	\$23,559,273.90	\$44,910,998.35
2017	\$20,910,945.95	\$19,737,447.78	\$40,648,393.73
2018	\$21,585,052.29	\$28,244,170.17	\$49,829,222.46
2019	\$33,623,546.52	\$31,915,592.90	\$65,539,139.42
Totals	\$162,698,437.93	\$158,019,826.28	\$320,718,264.21

\$53,453,044.04 **Annual Average**



Notes: Project locations are provided by applicants. Case and construction status is determined by the case filings. The nameplate capacity shown is the maximum capacity that could be built based on the number of approved photovoltaic panels and the highest nameplate capacity of the approved panel models. Pre-Application project locations are approximate. Map produced on 9/14/2020.

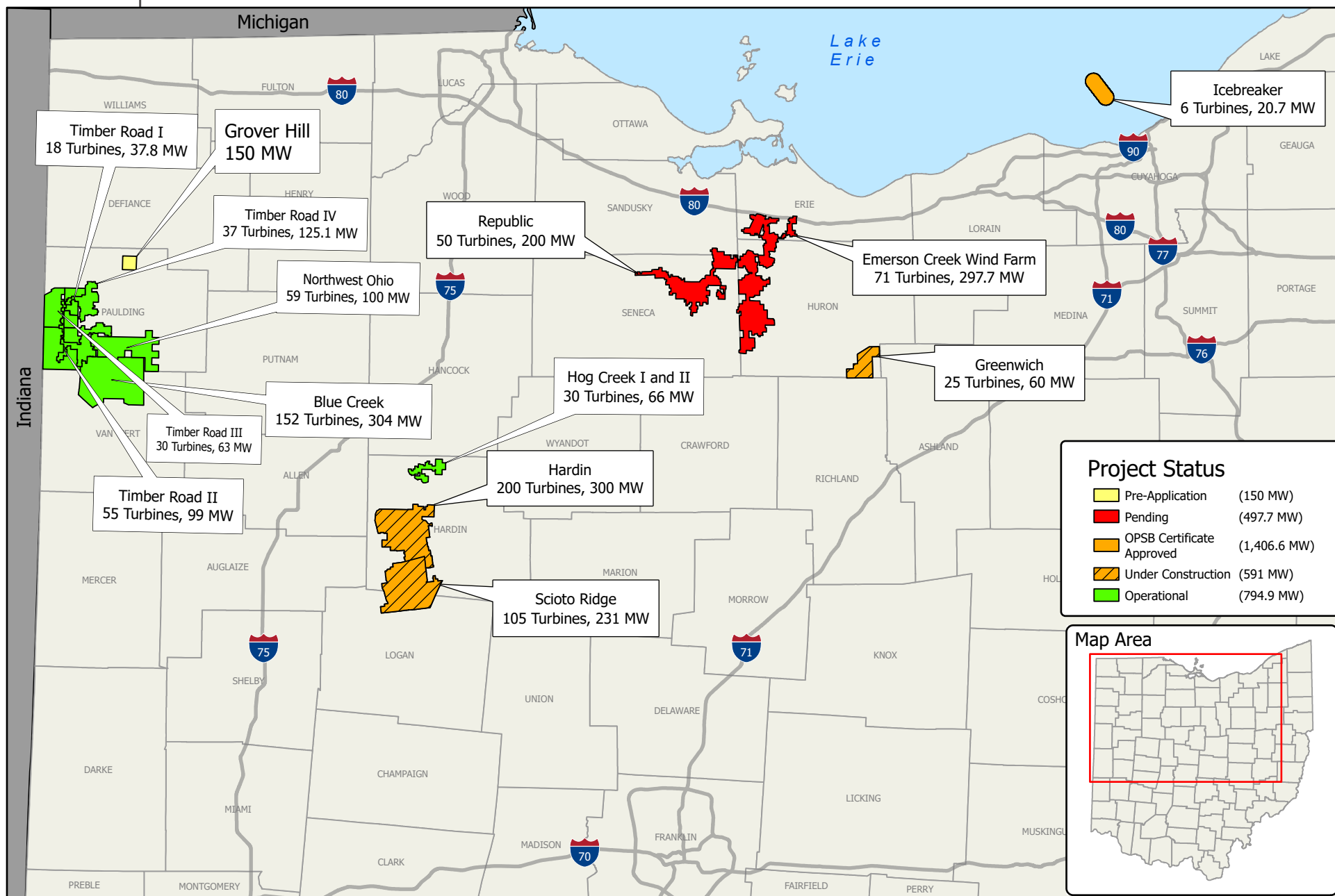
*"OPSB Certificate Approved" MW and acreage values include "Under Construction" MW and acreage values.

Operational Solar Facilities			Potential Solar Facilities (Approved, Pending, Pre-application)		
Operational Megawatts (MW):		NA	Potential Megawatts (MW):		3,520.5
Approved Solar Facilities (50 MW or greater)					
Case Number	Related Cases	Project Name	Approval Date	County	MW
17-0773-EL-BGN		Hardin ¹	2/15/18	Hardin	150
17-0774-EL-BGN	NA	Vinton	9/20/18	Vinton	125
17-1152-EL-BGN		Hillcrest ¹	2/15/18	Brown	200
	18-1267-EL-BGA		2/21/19		
18-1024-EL-BGN	NA	Willowbrook I	9/17/18	Brown, Highland	150
18-1334-EL-BGN	NA	Hecate Energy Highland	5/16/19	Highland	300
18-1360-EL-BGN	NA	Hardin II ¹	5/16/19	Hardin	170
	20-1321-EL-BGA		pending		
18-1546-EL-BGN	NA	Nestlewood	4/16/20	Brown, Clermont	80
				TOTALS:	1,175
¹ Under construction					
Pending and Pre-application Solar Facilities (50 MW or greater)					
Case Number		Project Name	Filing Date	County	MW
18-1578-EL-BGN		Alamo	12/10/18	Preble	69.9
18-1579-EL-BGN		Angelina	12/3/18	Preble	80
19-1823-EL-BGN		Madison (Big Plain)	4/27/20	Madison	196
19-1880-EL-BGN		Atlanta Farms	1/31/20	Pickaway	199.6
19-1881-EL-BGN		Madison Fields	7/17/20	Madison	180
20-0184-EL-BGN		Powell Creek	pre-application	Putnam	150
20-0931-EL-BGN		Fox Squirrel	pre-application	Madison	400
20-0972-EL-BGN		Yellowbud	7/21/20	Pickaway, Ross	274
20-0979-EL-BGN		Arche	7/30/20	Fulton	107
20-1288-EL-BGN		New Market	9/3/20	Highland	100
20-1362-EL-BGN		Clearview	pre-application	Champaign	144
20-1380-EL-BGN		Ross County	pre-application	Ross	120
20-1405-EL-BGN		AEUG Union County	pre-application	Union	325
				TOTALS:	2,345.5



Power Siting Wind Case Status

As of 8/26/2020



Project Status

- Pre-Application (150 MW)
- Pending (497.7 MW)
- OPSB Certificate Approved (1,406.6 MW)
- Under Construction (591 MW)
- Operational (794.9 MW)



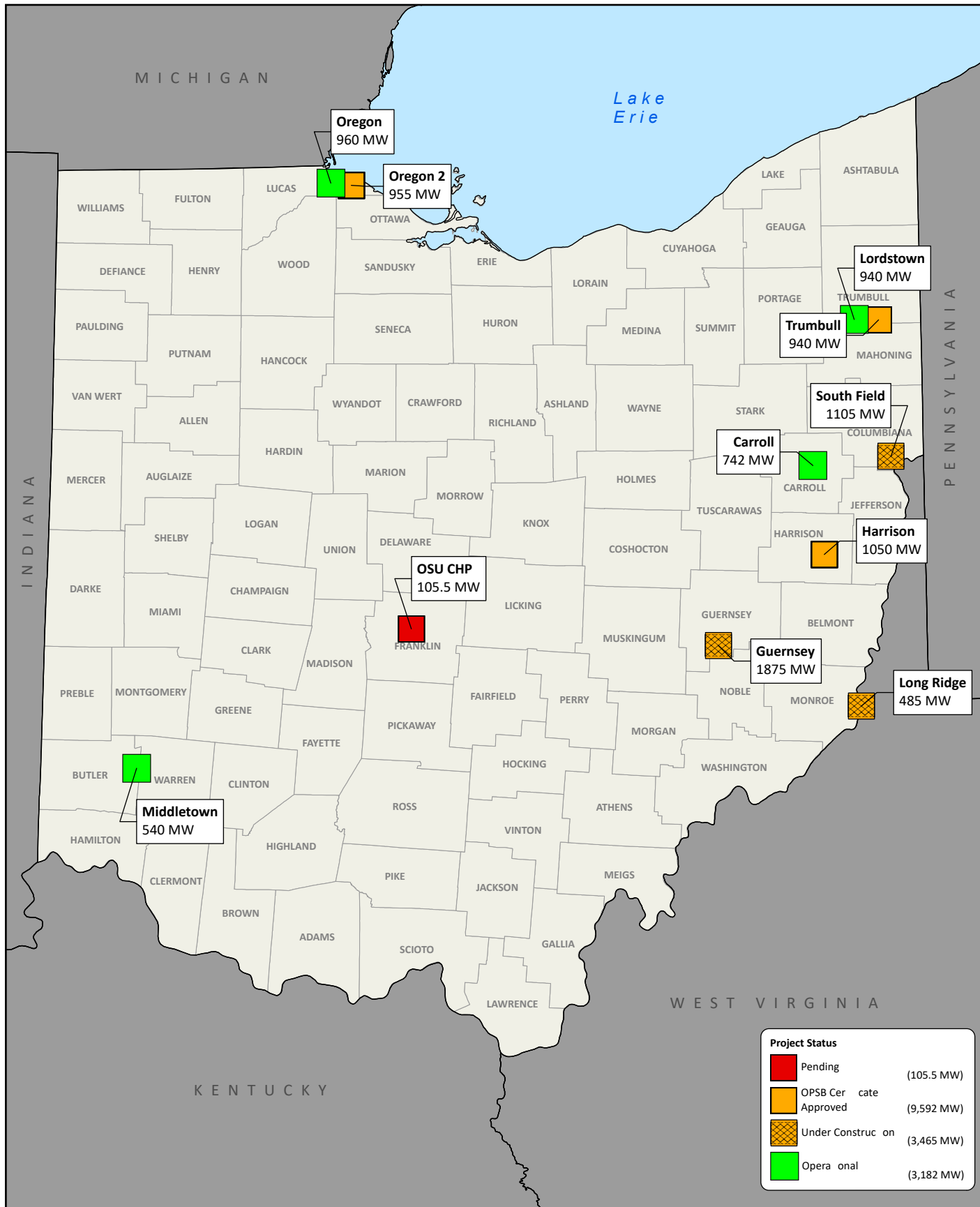
Notes: Project area boundaries are provided by applicants. Case and construction status is determined by the case filings. The nameplate capacity shown is the maximum capacity that could be built based on the number of approved turbines and the highest nameplate capacity of the approved turbine models. Pre-application project locations and layout area are approximate. Map produced on 8/26/2020.

Operational Wind Facilities			Potential Wind Facilities (Approved, Pending, and Pre-application)			
Operational Megawatts (MW):		719	Potential Megawatts (MW):		1,335.3	
Operational Turbines:		340	Potential Turbines:		481	
Operational Wind Facilities						
Case Number	Related Cases	Project Name	Online Date	County	Turbines	MW
09-1066-EL-BGN	11-1995-EL-BGA 11-3644-EL-BGA	Blue Creek	6/14/12	Paulding, Van Wert	152	304
09-0980-EL-BGN	15-2031-EL-BGA	Timber Road I	12/8/16	Paulding	18	37.8
10-0369-EL-BGN	10-3128-EL-BGA	Timber Road II	7/19/11	Paulding	55	99
10-0369-EL-BGN	15-2030-EL-BGA	Timber Road III	12/8/16	Paulding	30	63
09-0277-EL-BGN	11-0757-EL-BGA 11-5542-EL-BGA 16-1422-EL-BGA	Hog Creek I	12/19/17	Hardin	30	66
10-0654-EL-BGN	11-5543-EL-BGA 16-1423-EL-BGA 17-0627-EL-BGA	Hog Creek II	withdrawn			
13-0197-EL-BGN	16-0343-EL-BGA 16-1687-EL-BGA 17-1099-EL-BGA	Northwest Ohio	9/10/18 withdrawn 9/10/18	Paulding	42	100
18-0091-EL-BGN		Timber Road IV (queue position T131)	1/16/2020	Paulding	13	49.2
TOTALS:					340	719
Approved Wind Facilities						
Case Number	Related Cases	Project Name	Approval Date	County	Turbines	MW
09-0479-EL-BGN	11-3446-EL-BGA 14-1030-EL-BGA 16-0469-EL-BGA 16-2404-EL-BGA 18-0677-EL-BGA	Hardin ¹	3/22/10 12/5/16 withdrawn 2/2/17 3/2/17 6/21/2018	Hardin	200	300
13-0990-EL-BGN	15-1921-EL-BGA	Greenwich ¹	8/25/14 5/19/16	Huron	25	60
13-1177-EL-BGN	14-1557-EL-BGA 16-0725-EL-BGA 16-1717-EL-BGA 17-0759-EL-BGA 17-2108-EL-BGA 18-1473-EL-BGA	Scioto Ridge ¹	3/17/14 11/12/15 5/19/16 10/25/16 7/6/17 3/15/18 withdrawn	Hardin, Logan	105	231
16-1871-EL-BGN		Icebreaker	5/21/2020	Cuyahoga (Lake Erie)	6	20.7
18-0091-EL-BGN		Timber Road IV (queue position AC1-173) ¹	2/21/2019	Paulding	24	75.9
TOTALS:					360	687.6
¹ Under construction						
Pending Wind Facilities						
Case Number	Project Name	Filing Date	County	Turbines	MW	
17-2295-EL-BGN	Republic	2/2/2018	Seneca, Sandusky	50	200	
18-1607-EL-BGN	Emerson Creek	1/31/2019	Erie, Huron	71	297.7	
20-0417-EL-BGN	Grover Hill	pre-application	Paulding	unknown	150	
TOTALS:					121	647.7



Power Siting Power Siting Gas Generation & CHP Case Status
 Board

As of 8/26/2020



Notes: Facility locations are provided by applicants. Case and construction status is determined by the case filings. The capacity shown is the highest nameplate capacity of the approved units in the original case and any amendments. Map produced on 8/26/2020.

Operational Gas Generation and CHP Facilities			Approved and Pending Gas Generation and CHP Facilities		
Operational Megawatts (MW):		3,182	Potential Megawatts (MW):		6,515.5
Operational Gas Generation and CHP Facilities (50 MW or greater)					
Case Number	Related Cases	Project Name	Operational Date	County	MW
12-2959-EL-BGN	14-1396-EL-BGA 15-0297-EL-BGA 15-0853-EL-BGA 16-0518-EL-BGA 18-1466-EL-BGA	Oregon	7/1/17	Lucas	960
13-1752-EL-BGN	14-2085-EL-BGA 16-0841-EL-BGA 17-0925-EL-BGA	Carroll	1/10/18	Carroll	742
14-0534-EL-BGN	16-0062-EL-BGA 16-0076-EL-BGA	Middletown	5/18/18	Butler	540
14-2322-EL-BGN	16-0131-EL-BGA 16-0494-EL-BGA 16-0494-EL-BGA	Lordstown	9/30/18	Trumbull	940
				Total	3,182
Approved and Pending Gas Generation and CHP Facilities (50 MW or greater)					
Case Number	Related Cases	Project Name	Approval Date	County	MW
15-1716-EL-BGN	19-0638-EL-BGA	South Field ¹	9/22/16 5/16/19	Columbiana	1,105
16-2443-EL-BGN	18-0090-EL-BGA 20-0033-EL-BGA	Guernsey ¹	10/5/17 3/15/18 4/16/20	Guernsey	1,875
16-2444-EL-BGN	NA	Trumbull	10/5/17	Trumbull	940
17-0530-EL-BGN	17-2512-EL-BGA	Oregon 2	12/7/17 5/17/18	Lucas	955
17-1091-EL-BLN	NA	Long Ridge ¹	7/28/17	Monroe	485
17-1189-EL-BGN	NA	Harrison	6/21/18	Harrison	1,050
19-1641-EL-BGN	NA	OSU CHP	Pending	Franklin	105.5
				Total	6,515.5

¹ under construction