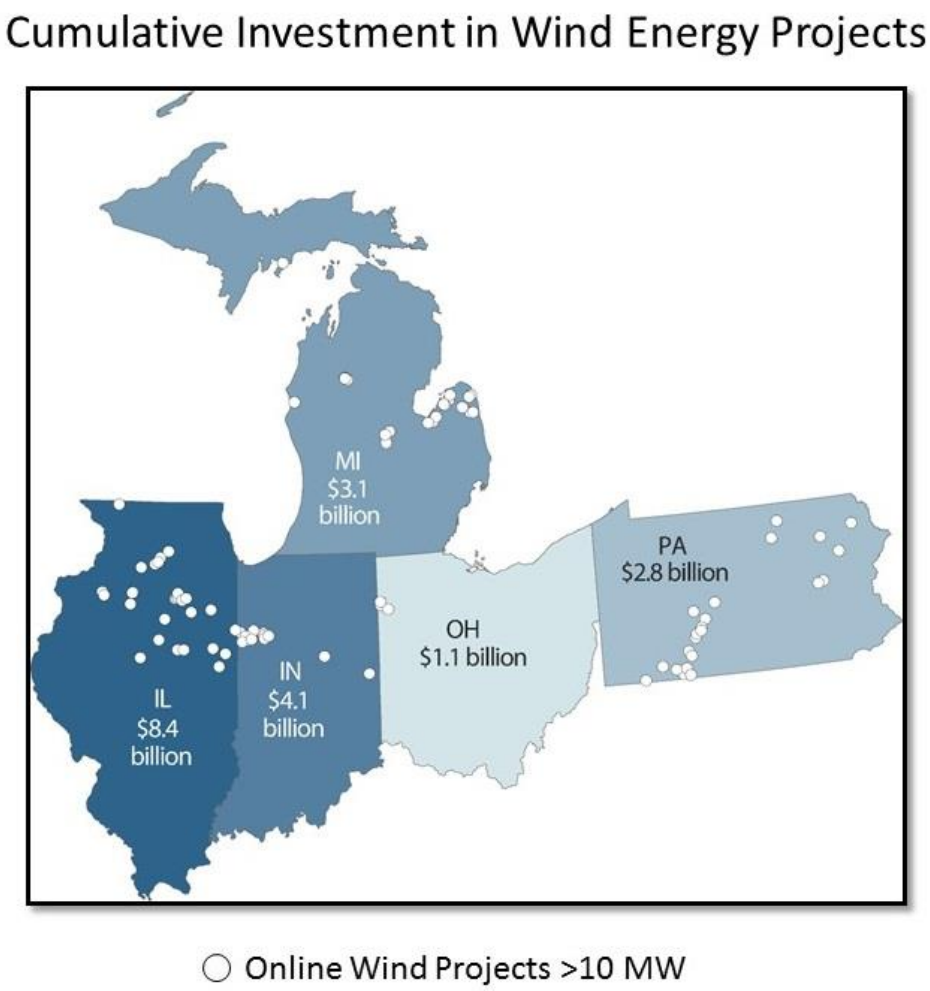
John Hensley
Proponent Testimony on Senate Bill 188
Senate Energy and Natural Resources
Chairman Troy Balderson
Wednesday, October 11, 2017

Chairman Balderson, Vice Chair Jordan, and members of the Senate Energy and Natural Resources Committee, thank you for the opportunity to submit written comments as a proponent to Senate Bill 188. My name is John Hensley and I am the Deputy Director of Industry Data and Analysis at the American Wind Energy Association (AWEA). I submit comments to provide an economic evaluation of the potential foregone economic and employment activity if Ohio does not fix its extreme wind turbine setback law.

For years, Ohio has largely missed out on economic development opportunities from the U.S. wind industry. Currently, Ohio contains just three utility-scale wind projects, significantly less than neighboring states. As a result, Ohio wind projects represent just $1.1 billion of capital investments, significantly lagging neighboring states. In comparison, the U.S. wind industry has invested three times as much in Michigan and Pennsylvania,



four times as much in Indiana, and eight times as much in Illinois.

Earlier in the decade, this lag in investment was primarily due to limited accessible wind resources in Ohio. However, today's innovative wind turbine designs – incorporating taller towers and longer blades – allow access to substantial wind resources unreachable just a few years ago. In fact, the National Renewable Energy Laboratory estimates Ohio's technical wind resource exceeds 55,000 megawatts – enough to power over 27 million homes.

Unsurprisingly, wind project developers stand ready to put this resource to productive use. Based on Ohio siting applications and company records, developers have plans to build over 3,300 MW of new wind projects in the state. If built, these projects are estimated to provide over $4.2 billion in local economic activity over their life, including capital investment, operational expenditures, tax payments, and lease payments to landowners. And that does not account for the induced benefits resulting from wind project developers staying in hotels, eating at restaurant, buying fuel, going to the movies, or whatever else they may do while designing, building, and working at the project.

Despite the economic potential of these wind projects, most are at risk of not being built due to the siting requirements in the state. In May 2014, HB 483 changed the property line setback requirement so that a wind turbine must be located at least 1,125 feet from the tip of the turbine blade to the nearest adjacent property line. This change made the property line setback for wind turbines that same as the habitual structure setback. In practice, this requires setbacks of approximately 1,300 feet from each turbine's base to the edge of neighboring property. Since the effective date of HB 483, no siting applications for wind power projects have been made to Ohio's Power Siting Board and only one utility-scale wind project has been completed.

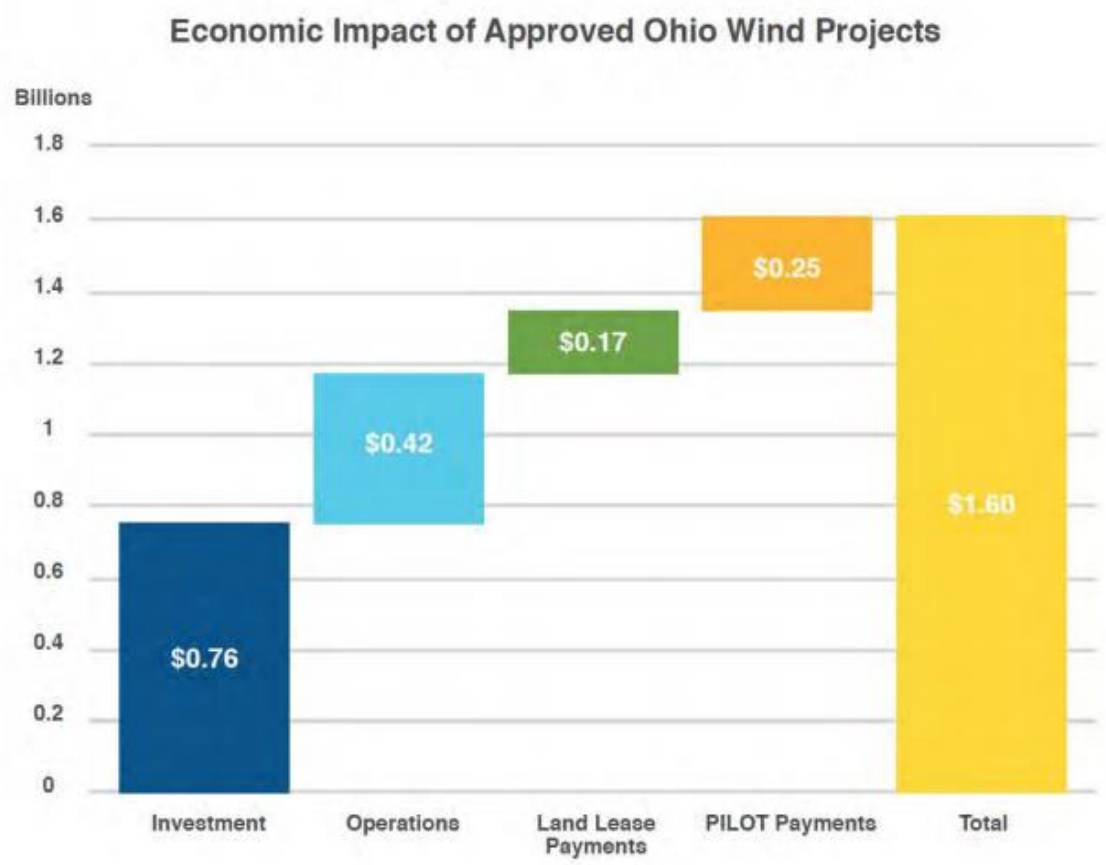
Although the law allows already-permitted projects to continue, they may only do so if no amendments to the existing certificates are made. Over the course of a wind project's planning process, certificate amendments may need to be changed several times – to adjust for new wind turbine technology, ensure the layout of the project is optimal for all parties involved, or for environmental reasons. Consequently, some 'grandfathered' projects may not be able to proceed.

The general consensus among project developers is that the current property line setback requirements in Ohio effectively render wind projects unable to be sited and built. Interestingly, in this situation, we know the volume of projects that developers would pursue under less restrictive setback requirements. This presents an opportunity to evaluate suppressed near-term economic development from the wind industry in Ohio.

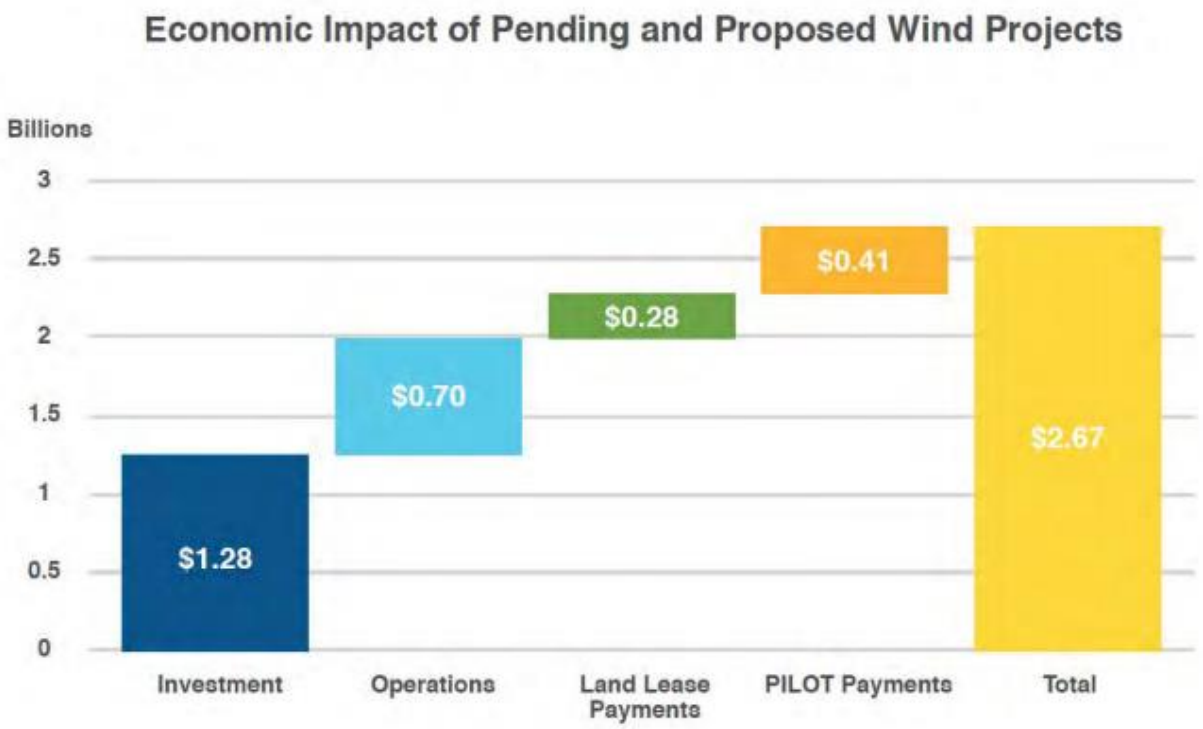
Economic modeling based on the National Renewable Energy Laboratory's Jobs and Economic Development Impact (JEDI) model and empirical data relating to Payment in Lieu of Taxes (PILOT) agreements for existing wind projects shows that the current pipeline of projects proposed in Ohio would generate $4.2 billion in local economic activity. This includes: $2 billion in local capital investment; over $1 billion in lifetime operational expenditures in the state; $660 million in PILOT payments to local schools and governments; over $440 million in land lease payments to landowners; and the need for 13,000 full-time equivalent (FTE) jobs.

Given the different siting statuses of wind projects in Ohio, these potential economic benefits can be broken out for projects the Ohio Public Siting Board (PSB) has already approved and for proposed projects. Through

March 2017, the Ohio PSB has approved 1,232 MW of wind projects. If fully built, these projects will generate an estimated $732 million in local capital investment. Ohio contains more than 60 wind-related manufacturing facilities producing component for the wind industry. These projects will undoubtedly bring additional business to these facilities, in addition to requiring planning, engineering, transportation, raw material, and construction services from Ohio businesses. Investments in these services contribute to the $732 million total. Moreover, the projects will require maintenance and servicing over their expected 30-year lifespan. As a result, project operators will spend a projected $420 million locally in Ohio. PILOT payments from the project will total an estimated $250 million and can help pay for new schools, infrastructure projects, or other government projects. Finally, local landowners who lease their land to host the wind turbines will receive more than $165 million for the use of their land. In total, the eight approved projects would directly drive $1.6 billion in economic activity and support over 5,000 jobs.



There are at least another nine wind projects totaling 2,070 MW proposed by developers. Similarly, these projects, if built, represent significant rural economic development and infrastructure for Ohio. Initial local capital investment in Ohio of $1.3 billion is expected. Then over the life of the projects, Ohio could experience $700 million in operational spending, $275 million in landowner lease payments, and $410 million in PILOT revenues. Importantly, these projects will support over 8,100 jobs at the height of construction.



Aside from the potential economic loss directly from wind projects, the lack of wind power development is impeding Ohio's ability to compete for new businesses. Large companies like Amazon, Google, and Apple are constantly looking to expand their existing facilities, while meeting their ambitious clean energy requirements. By constraining wind energy development, Ohio risks losing major business investment to nearby states that are embracing clean, local sources of energy. For example, in 2015, Facebook chose Texas over Ohio to host a billion-dollar data center, citing the inability to secure renewable energy for the facility.

As a final point, it is important to consider that this economic evaluation only estimates the potential economic impact from wind projects that project developers have publicly identified. As I previously mentioned, the technical wind potential in Ohio exceeds 55,000 megawatts. Under a reformed setback regime, developers would assuredly pursue more than just 3,300 megawatts of new wind projects. Further development of Ohio's wind resource will continue to grow the state's wind supply chain; build localized expertise in development, turbine transportation and logistics, construction, engineering, and project operation; and create new job opportunities.

Continuing to grow Ohio's wind industry can deliver billions in new investment and millions in annual revenue for local communities.