TESTIMONY OF JULIA F. JOHNSON HB 401 HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE November 19, 2019

Chairman Vitale, Vice Chairman Kick, Ranking Member Denson, my name is Julia Johnson and I am here to provide testimony in support of HB 401 to give impacted township voters the right of referendum over the imposition of industrial uses in rural residential communities.

The purpose of zoning is to separate incompatible uses. An industrial wind turbine is a power plant with blades rotating at about 200 mph six hundred feet in the air. They can be seen from thirty miles away and at night their blinking red lights obliterate the night sky. They belong in areas zoned for industry and not for rural residential use.

It is against the law in Ohio to build a home in an area zoned for industrial use. Why should it be lawful to place an industrial facility in a rural residential area? Taxpaying Ohioans in NW Ohio have lost the right to the protections of zoning. HB 401 will give them the power to choose whether or not to relinquish that right.

Contracts to lease land for wind turbines include provisions for the landowner to waive specified adverse impacts including noise, moving shadows, ice throw, vibrations and so forth. Abutting property owners may grant easements, euphemistically called Good Neighbor Agreements ("GNA"), which allow these adverse impacts to be imposed on the neighboring land. More often than not, the GNA's primary purpose is to enable the developer to meet regulatory requirements for setbacks. The adverse impacts are a secondary consideration and, importantly, once the setback threshold is met, adverse impacts imposed on residents residing beyond that threshold are not addressed.

An example of this would be in the area of noise. It is generally accepted that an increase in noise of 5 decibels above background levels is noticeable and can be annoying. Above that, the annoyance increases. In the application phase, the developer measures background noise levels on properties of about 10 or so selected leaseholders across the footprint of the project. This can be an area that is more than 50 square miles. The results are then averaged and the OPSB approves this averaged baseline noise level and authorizes noise to rise a maximum of five decibels above that average.

This protocol completely disregards the rural resident who may reside in a very quiet area and who will almost certainly experience more than a five decibel increase in noise causing a high degree of annoyance. If that resident is in the impacted township but neither inside the footprint nor directly abutting it, that resident has no standing to intervene or have his concerns addressed during the application approval process at the OPSB.

Under my example, the resident residing in the township where the industrial wind development will be sited is denied both the protection of zoning and the possible protection of the OPSB.

One other point I would like to make today concerns the cost and the benefit of hosting an industrial wind development in the community. The wind industry claims local economic benefit from lease payments to landowners. Yet, we find that in most Ohio projects, an average of thirty percent of the turbines are on land owned by absentee landowners. How is it that people who do not live in the community can impact the character of the community for generations and drain value from its residents? By giving the power of the referendum to local voters, the unfair influence of absentee landowners is negated.

Some costs can be quantified while others cannot. Boston University conducted a study to quantify the economic contribution of bats to agricultural communities. Bats eat meaningful quantities of insects and help the farmer reduce the need for pesticides. This is a good environmental outcome but it is also an important financial contribution. The Boston University study assigns a value of \$74 per crop acre in avoided pesticide costs from bats. In Champaign County , BU estimates the cost could equal more than \$12 million in additional annual pesticide costs for farmers. In Seneca County the cost could exceed \$16 million per year. Attachment A

Likewise, the possible risk to aerial spraying is not accounted for when considering the cost versus benefit of an industrial wind project. The National Agricultural Aviation Association in an advertisement states that:

"Aerial spraying or "crop dusting" gets more challenging with every wind turbine erected on America's farmland. Without careful planning in their placement, farmers could lose the option – and the advantage – of aerial spraying. Agricultural aircraft can treat large areas of land quickly and safely, and may be the only option for treating crops when wet fields, rolling terrain or dense crop foliage exist. Landowners are being asked to make crucial decisions that will impact farmers and their neighbors for years to come. Improper wind turbine siting may negatively affect aerial applicators, emergency medical flights, pipeline patrols and other low-flying aircraft. Be sure to consider all the facts before "green lighting" a wind energy installation on your land."

Attachment B

These examples are just two illustrations of costs that are borne by the larger community beyond the boundary line of a leased property or the footprint of a development. Industrial wind imposes costs on the broader community while the benefits accrue more specifically to a landowner who often lives outside of the county or outside of the state.

It should be up to those who bear the cost to determine whether the benefits are sufficient to off-set those costs.

EXHIBIT A

| County | Harvested Land | Estimated Value of Bats | Estimated Value of Bats | Estimated Value of Bats Assuming High Crop |
|------------|----------------|--|---|--|
| | | Assuming Standard Crop Pest Survival (US \$) | Assuming Low Crop Pest Survival (US \$) | Pest Survival (US \$) |
| | | | | |
| ADAMS | 72,327 | 5359431 | 875156.7 | 12476408 |
| ALLEN | 161,100 | 11937510 | 1949310 | 27789750 |
| ASHLAND | 99,326 | 7360057 | 1201845 | 17133735 |
| ASHTABULA | 93,639 | 6938650 | 1133032 | 16152728 |
| ATHENS | 19,064 | 1412642 | 230674.4 | 3288540 |
| AUGLAIZE | 180,880 | 13403208 | 2188648 | 31201800 |
| BELMONT | 33,321 | 2469086 | 403184.1 | 5747873 |
| BROWN | 153,529 | 11376499 | 1857701 | 26483753 |
| BUTLER | 89,047 | 6598383 | 1077469 | 15360608 |
| CARROLL | 52,918 | 3921224 | 640307.8 | 9128355 |
| CHAMPAIGN | 170,256 | 12615970 | 2060098 | 29369160 |
| CLARK | 148,497 | 11003628 | 1796814 | 25615733 |
| CLERMONT | 68,602 | 5083408 | 830084.2 | 11833845 |
| CLINTON | 187,868 | 13921019 | 2273203 | 32407230 |
| COLUMBIANA | 79,340 | 5879094 | 960014 | 13686150 |
| COSHOCTON | 75,307 | 5580249 | 911214.7 | 12990458 |
| CRAWFORD | 195,976 | 14521822 | 2371310 | 33805860 |
| CUYAHOGA | 736 | 54538 | 8905.6 | 126960 |
| DARKE | 307,552 | 22789603 | 3721379 | 53052720 |
| DEFIANCE | 184,971 | 13706351 | 2238149 | 31907498 |
| DELAWARE | 116,206 | 8610865 | 1406093 | 20045535 |
| ERIE | 72,734 | 5389589 | 880081.4 | 12546615 |
| FAIRFIELD | 127,033 | 9413145 | 1537099 | 21913193 |

| FAYETTE | 191,318 | 14176664 | 2314948 | 33002355 |
|-----------|---------|----------|----------|----------|
| FRANKLIN | 48,311 | 3579845 | 584563.1 | 8333648 |
| FULTON | 165,376 | 12254362 | 2001050 | 28527360 |
| GALLIA | 25,832 | 1914151 | 312567.2 | 4456020 |
| GEAUGA | 23,413 | 1734903 | 283297.3 | 4038743 |
| GREENE | 136,106 | 10085455 | 1646883 | 23478285 |
| GUERNSEY | 37,362 | 2768524 | 452080.2 | 6444945 |
| HAMILTON | 9,498 | 703802 | 114925.8 | 1638405 |
| HANCOCK | 221,154 | 16387511 | 2675963 | 38149065 |
| HARDIN | 216,766 | 16062361 | 2622869 | 37392135 |
| HARRISON | 33,643 | 2492946 | 407080.3 | 5803418 |
| HENRY | 215,244 | 15949580 | 2604452 | 37129590 |
| HIGHLAND | 167,127 | 12384111 | 2022237 | 28829408 |
| HOCKING | 12,326 | 913357 | 149144.6 | 2126235 |
| HOLMES | 90,414 | 6699677 | 1094009 | 15596415 |
| HURON | 178,272 | 13209955 | 2157091 | 30751920 |
| JACKSON | 24,166 | 1790701 | 292408.6 | 4168635 |
| JEFFERSON | 24,523 | 1817154 | 296728.3 | 4230218 |
| KNOX | 129,393 | 9588021 | 1565655 | 22320293 |
| LAKE | 7,316 | 542116 | 88523.6 | 1262010 |
| LAWRENCE | 10,816 | 801466 | 130873.6 | 1865760 |
| LICKING | 157,367 | 11660895 | 1904141 | 27145808 |
| LOGAN | 153,016 | 11338486 | 1851494 | 26395260 |
| LORAIN | 95,619 | 7085368 | 1156990 | 16494278 |
| LUCAS | 56,865 | 4213697 | 688066.5 | 9809213 |
| MADISON | 215,459 | 15965512 | 2607054 | 37166678 |
| MAHONING | 41,656 | 3086710 | 504037.6 | 7185660 |
| MARION | 179,015 | 13265012 | 2166082 | 30880088 |
| MEDINA | 69,048 | 5116457 | 835480.8 | 11910780 |
| MEIGS | 19,570 | 1450137 | 236797 | 3375825 |
| MERCER | 258,038 | 19120616 | 3122260 | 44511555 |
| | | | | |

| MIAMI | 173,166 | 12831601 | 2095309 | 29871135 |
|------------|---------|----------|----------|----------|
| MONROE | 22,908 | 1697483 | 277186.8 | 3951630 |
| MONTGOMERY | 94,120 | 6974292 | 1138852 | 16235700 |
| MORGAN | 24,320 | 1802112 | 294272 | 4195200 |
| MORROW | 127,185 | 9424409 | 1538939 | 21939413 |
| MUSKINGUM | 64,864 | 4806422 | 784854.4 | 11189040 |
| NOBLE | 23,458 | 1738238 | 283841.8 | 4046505 |
| OTTAWA | 102,389 | 7587025 | 1238907 | 17662103 |
| PAULDING | 221,993 | 16449681 | 2686115 | 38293793 |
| PERRY | 48,540 | 3596814 | 587334 | 8373150 |
| PICKAWAY | 241,562 | 17899744 | 2922900 | 41669445 |
| PIKE | 27,054 | 2004701 | 327353.4 | 4666815 |
| PORTAGE | 53,627 | 3973761 | 648886.7 | 9250658 |
| PREBLE | 196,777 | 14581176 | 2381002 | 33944033 |
| PUTNAM | 272,446 | 20188249 | 3296597 | 46996935 |
| RICHLAND | 98,680 | 7312188 | 1194028 | 17022300 |
| ROSS | 122,360 | 9066876 | 1480556 | 21107100 |
| SANDUSKY | 162,358 | 12030728 | 1964532 | 28006755 |
| SCIOTO | 39,967 | 2961555 | 483600.7 | 6894308 |
| SENECA | 227,104 | 16828406 | 2747958 | 39175440 |
| SHELBY | 181,568 | 13454189 | 2196973 | 31320480 |
| STARK | 95,234 | 7056839 | 1152331 | 16427865 |
| SUMMIT | 7,688 | 569681 | 93024.8 | 1326180 |
| TRUMBULL | 80,484 | 5963864 | 973856.4 | 13883490 |
| TUSCARAWAS | 69,225 | 5129573 | 837622.5 | 11941313 |
| UNION | 186,207 | 13797939 | 2253105 | 32120708 |
| VAN WERT | 231,598 | 17161412 | 2802336 | 39950655 |
| VINTON | 10,780 | 798798 | 130438 | 1859550 |
| WARREN | 66,193 | 4904901 | 800935.3 | 11418293 |
| WASHINGTON | 40,678 | 3014240 | 492203.8 | 7016955 |
| WAYNE | 182,459 | 13520212 | 2207754 | 31474178 |

| WILLIAMS | 152,288 | 11284541 | 1842685 | 26269680 |
|----------|---------|----------|---------|----------|
| WOOD | 246,475 | 18263798 | 2982348 | 42516938 |
| WYANDOT | 190,994 | 14152655 | 2311027 | 32946465 |

SOURCE: J. G. Boyles, P. M. Cryan, G. F. McCracken, T. H. Kunz. **Economic Importance of Bats in Agriculture**. *Science*, 2011; 332 (6025): 41 DOI: 10.1126/science.1201366