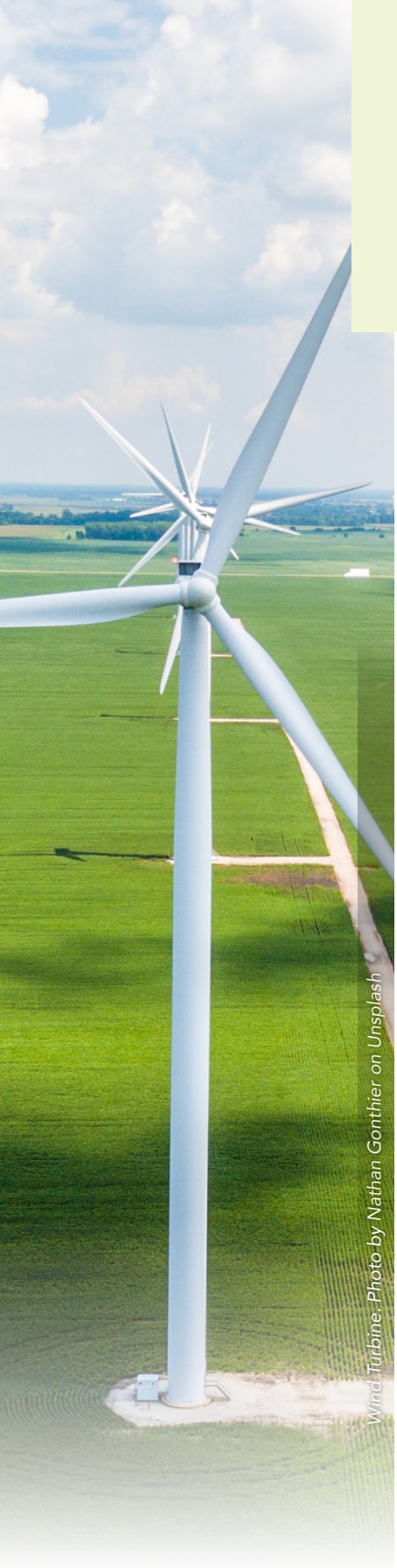

Wind Turbine. Photo by Nathan Gonthier on Unsplash

"Clean Energy in Michigan" Series, Number 10

Planning for Renewable Energy: Huron County, Michigan

By Sarah Mills, University of Michigan

Q: What can Michigan's Thumb teach us about planning for wind energy?

Michigan's Thumb has some of the best wind resource in the state. In 2009, a report from the Wind Energy Resource Zone Board identified the Thumb as having the highest potential to produce wind energy to meet the state's renewable portfolio standard—also noting the Thumb lacked transmission capacity to bring the renewable energy to load centers elsewhere in the state.[1] This report paved the way for construction of a 140 mile transmission line—the Thumb Loop—to enable power generated by windfarms in Huron, Tuscola, Sanilac, and St. Clair counties to connect to existing electrical infrastructure north of metro Detroit.

For much of the last decade, the Thumb—and in particular, Huron County, located at its tip—has been Michigan's wind capital. The county's first two utility-scale wind projects went online in 2008. Subsequently, eleven more projects were built in Huron County. As a result, the county's 13 wind projects account for about 41% of the state's total wind capacity (870 of the state's 2,139 MW) as of the end of 2019.

Huron County's Planning and Zoning for Wind

The growth of wind energy in Huron County was aided by planning and zoning that largely viewed wind energy development as a land use generally compatible with the county's agricultural goals, particularly related to farmland preservation. This was the view taken both by the county—which is responsible for zoning 16 townships—as well as by a number of other townships in the county that are self-zoned.

The county chose to regulate utility-scale wind energy by zoning an overlay district that would allow turbines to be sited within the zone after a straightforward site plan review. However, because every wind project effectively requires a rezoning to apply the overlay district, each of these projects is subject to a protest petition. This allows all voters who are registered in townships covered by county zoning to vote on whether the overlay district should be approved.

In 2010, a ballot measure challenging an overlay district that spanned four townships passed with 59% of the vote.

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The Clean Energy in Michigan series provides case studies and fact sheets answering common questions about clean energy projects in Michigan.

Find this document and more about the project online at graham.umich.edu/climate-energy/energy-futures.

Huron County, Michigan. Map source: Wikipedia

No Longer the Wind Capital

Though the projects approved through the 2010 ballot referendum were constructed, wind energy became increasingly divisive in Huron County. In 2015, the Planning Commission issued a moratorium on wind development to consider changes to the zoning ordinance. The county made changes to the ordinance and subsequently approved two new overlay rezonings. Enough signatures were gathered to put these rezonings before voters on the May 2017 ballot, and both were rejected by 63% of voters. For all intents and purposes, any wind developer interest in Huron County has stopped.

The county is currently undergoing a review of its Master Plan, and while not finalized as of March 2020, the draft Master Plan suggests that the referendum vote and a resident survey indicate that support for future wind development is uncertain.

What Happened in Huron County?

No one knows for sure. There is some speculation that Huron County just reached a saturation point: that people decided enough was enough. However, that idea isn't ubiquitous, and research from other states has not consistently supported the idea of there being a saturation point or "cumulative impacts" of multiple wind projects.[2]

One reason explicitly called out in the Master Plan review likely has to do with tax payments. The State Tax Commission has changed the tax table for wind turbines three times since it was initially adopted, often resulting in less money going to local governments than what was originally expected. This has led to legal disputes when wind developers appeal their tax assessments to the Michigan Tax Tribunal. It has also meant that local governments are hesitant to make long-term plans for the tax revenues associated with wind development since there is still some uncertainty about the revenue stream. Researchers at the University of Michigan are trying to understand if there are alternate ways to tax wind energy to remedy this issue.[3]

Another possible reason there has been such a change in Huron County's approach to wind development may be that—as the first in the state—there was a learning curve for both local communities and wind developers about how wind best fit in communities, and how to best engage residents in planning for renewable energy. Many of those lessons have been documented in "Lessons Learned: Community Engagement for Wind Energy Development in Michigan"[4] and are increasingly becoming standard practice in planning for wind.

1 Public Sector Consultants and Michigan State University Land Policy Institute, Final report of the Michigan Wind Energy Resource Zone Board, October 2009, https://www.canr.msu.edu/resources/final_report_of_the_michigan_wind_energy_resource_zone_board

2 Rand, Joseph, and Ben Hoen. "Thirty years of North American wind energy acceptance research: What have we learned?" Energy Research & Social Science 29.July 2017 (2017) 135-148. https://emp.lbl.gov/publications/thirty-years-north-american-wind

3 Stephanie Leiser and Amelia Esenstad, The Taxation of Wind Energy, September 2019, http://closup.umich.edu/files/REPI-Leiser%20etal.pdf

4 Lessons Learned: Community Engagement for Wind Energy Development in Michigan, Wind Energy Stakeholder Committee (WESC), January 2018, https://static1.squarespace.com/static/564236bce4b00b392cc6131d/t/5a848c6771c10b7697cb6c50/1518636136391/Lessons+Learned_WESC+Report_Final.pdf