

Please attach my testimony in **OPPOSITION** to House Bills 5120-5123 for the October 18th "Energy, Communications and Technology" committee meeting.

I am a firm believer in local land use control. The Michigan Zoning Enabling Act of 2006 specifically grants the rights of land use regulation to local municipalities, and it does so for a reason. **Local government is much better suited to make these decisions than a state organization or office.**

In my 8 years as a Township Trustee, 4 years as a Planning Commission member, and 15 years as Extraction Committee chair in Waterloo Township, I have seen the importance of local control. One specific example is a case where we had to change our gravel ordinance in order to avoid mishaps with loaded gravel haulers at school bus stops in our township when near collisions were reported from our constituents. Changing the hours of operation by 30 minutes fixed this problem, but may never have happened (or may have happened too late) if the regulation were performed under state control.

Decisions involving local land use need to stay at the Township level.

I would also insist that the sponsors of these bills stop calling wind and solar energy "reliable" energy. If the wind doesn't blow, you get zero power from wind turbines. And solar panel output is reduced by as much as 90% on rainy days (<https://shopsolarkits.com/blogs/learning-center/100-watt-solar-panel-output-on-cloudy-day>). These energy sources, while good SUPPLEMENTS to our energy grid, are NOT RELIABLE. What this bill does, along with the push to 100% renewable, is replace reliable energy (natural gas, coal, nuclear) with UNRELIABLE energy (wind and solar). **Calling wind and solar reliable is disingenuous and in fact, misinformation. This needs to stop.**

Lastly, I would like to know, before moving to 100% wind and solar, what research has been done on the following topics:

1. Solar panel impacts on local ground water. (Do solar panels, over time, leak some of their toxic materials, like lead, into the ground water supply?)
2. Solar farms violating the clean water act. Here is a link to a report showing the EPA had to fine 4 solar farms due to their polluting of a local waterway due to poor erosion control.
 - <https://www.popsci.com/environment/solar-farm-construction-epa-water-violations/>
3. Solar farms creating local 'global warming' spots. Reports have shown that solar farms can increase the local temperature by as much as 7°F. How does this affect the climate?
4. Effects on groundwater due to the inability to recycle solar panels or wind turbine blades.
 - a. Wind turbine blades are not recyclable, at all, and are currently being buried in the ground at the end of their useful life.
 - b. Solar panels are also not recyclable and contain toxic chemicals like lead. They are usually dumped into landfills at the end of their useful life.

None of the above things seem 'green' to me. I'm not necessarily against supplementing our energy grid with these energy sources and installing them where they are compatible land uses. However, we shouldn't move so quickly that we skip doing the necessary research into the impacts of these systems to our environment.

At the very least, studies like these should be required for each site where a new solar or wind farm is being proposed, and this language should be added to these bills.

Please vote no on House Bills 5120-5123.

Thank you for your time,

Bill Richardson

Waterloo Township