

PROPONENT TESTIMONY – SB 52
Dr. Thomas W. Hull
Allen County
Senate Energy and Public Utilities Committee
March 9, 2021

Chairman Peterson, Vice Chair Schuring, Ranking Member Williams and members of the Committee. I am Dr. Thomas W. Hull and I reside in Allen County. I am in support of SB 52 and would like to address my concerns that without the passage of this bill a state agency (Ohio Power Sitting Board) will override the will of the citizens.

I support SB 52. I am a member of AgainstBirchSolar who is concerned about the safety of our children and public. I am writing to voice my concern about the Solar projects and the public health of the citizens of Ohio living near these projects. I am writing you about my concerns with citizens being so close to Electromagnetic Fields (EMF). The solar industry will say that a solar panel's EMF is equivalent to a microwave oven and has very little impact on health. They may be but the information following raises potential health concerns. The research on EMF raises many notable questions and risk for all people. Secondly, these fields which are being called farms and are not natural will affect the mental health of our citizens as seen below:

1) The project being proposed by Birch Solar is 2,345 acres of solar panels that will surround citizens and be generating EMFs most of the day, not just when someone is making a sandwich. This exposure is a potential health hazard. The research on the harm to people and even nature has not covered this magnitude of exposure. This is risky business with the history of the damage that was done by other "helping causes" (lead, opiates, antibiotics, coal burning etc.) that later were found to cause major health concerns and deaths.

2) The research has shown that EMF's have effects on psychological and mental health with higher integrated exposure as seen in researched published in Bioelectromagnetics, 1997. Another study looking at effects of electromagnetic fields on mental health found that workers who were employed and worked around EMF and noise were suspected to have a kind of mental disorder (Pak J Bio Sci., 2010).

3) The World Health Organization did a press release in May 2011 issuing warnings about the adverse effects of exposure to Electromagnetic Fields such as cancer. With proposed solar projects located close to heavily populated rural areas, this raises concerns about safety. (https://www.who.int/docs/default-source/radiation-international-emf-project-reports/emf-iac-2011-progress-report.pdf?sfvrsn=be9b47fe_2&download=true)

4) In a review of the research on potential emotional and cognitive effects of EMF's published in February 1997 identified that exposure reduces serotonin and melatonin in blood and contributes to sleep problems and depression (Welker, 1983); causes changes in normal circadian period (causing sleep problems) (Wever, 1973), might cause fatigue or psychosis; although not conclusive, the authors raise plausible questions and increase the need for precaution since the research is not conclusive.

5) In an article in press by Pathophysiology (2013), the authors state that the research on autism and exposure to EMF is significant enough to add EMF to the list of exposures that degrade the human genome and impair normal development, health and quality of life. Solar projects, such as Birch Solar, are too close, and too large, to put our children at risk.

6) A study on the exposure to EMF and suicide found that electric utility workers exposed to extremely low EMF had increased risk of depression, anxiety, hostility, paranoia, interpersonal-sensitivity and obsessive compulsive behaviors (Occupational and Environmental Medicine, 2000); another study in 2006 in Journal of Research in Health Sciences (2006) found similar results; and a study published in JAMA 2020 found an association between EMF and ADHD.

7) Urban areas have increased depression and mental health issues (suicide included) due to the reduction of green space. By allowing Solar projects to build their massive 10 foot high walls of solar panels, the green space around populated areas will be reduced and the potential for mental health issues increased. Urban studies are identifying a need to put green space back in highly populated areas, and now big business is creating the same effect by walling in heavily populated rural areas with 10 foot high metal structures.

As Clinical Psychologist, I treat children and adults who have mental health issues and are suicidal. The rate of depression and suicide is increasing, not just because of COVID, but is increasing due to what we are doing to the our world (reducing green space, increased exposure to EMF, substance abuse, etc). The job as Public officials is to protect the citizens from current and future harm. By letting solar projects, like Birch Solar/BP, and a few farmers place large EMF walls close to densely populated areas, you as public officials will be contributing to the harming of Ohioans.

As a public official, you have the ability to put restrictions and demand sound research evidence to protect our great Ohio and all the people. I am for renewable energy but I am against the methods of generating energy that is not well researched, does little for the community and causes harm to wild life and people. I challenge all public officials to take a stand, and support SB 52 to force companies to follow regulations that protect the people.

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