

Benton Township Volunteer Fire Department
68073 US Highway 33 Goshen, IN 46526

Elkhart County Officials,

This letter is in response to the request for public input on a proposed solar ordinance for Elkhart County. As you know, the planned solar facility rejected in 2021 was going to be built in our Township. As a result of this proposed facility, we as a department received numerous questions from the public if we are able to handle the possibility of being called to the facility in case of emergencies; the short answer is NO.

The Benton Township Fire Department is a 100% volunteer department. As most of you know, many nationwide volunteer fire departments struggle to get volunteers; we are no different. Our department has a 30-man roster, and we are currently able to fill 22 of those positions; of those 22 members, more than half of our 22 members were able to respond to less than 15% of our 182 total calls last year for service. Upon doing some research during the previous 25 years, the average employment span of a volunteer firefighter on our department is 9.8 years. We are concerned that if our current staff is trained to respond to the unique hazards associated with a solar facility, we may not have trained members by the end of the 30-year lifespan of the facility. After extensive research and consulting with our local hazardous materials response team, we have the following concerns if a large-scale power plant was built in our community.

- Solar panels contain many hazardous materials; in the event of a fire, these materials could create a dangerous gas that would harm the community and first responders. Water runoff from extinguishing a hazardous materials fire is also very toxic and can contaminate the soil and the groundwater if not properly contained.
- Industrial solar facilities contain many “semi-trailer” size batteries to store the energy. These batteries can be made of several different materials that pose a fire or explosion risk if they become overheated. Many of these types of batteries require particular kinds of extinguishment foams.
- Industrial solar facilities require the construction of a multi-acre electrical substation. In the event of a fire at an electrical substation, traditional firefighting tactics are ineffective due to the inability to apply water due to the risk of electrical shock. This means waiting an unknown amount of time for someone from the facility who is trained for this situation to arrive on-scene to mitigate the issues and turn off the power. Solar panels can continue to produce power even when disconnected from the power grid making them very dangerous during an emergency.
- Due to the size of solar facilities, sometimes thousands of acres, we are concerned about access to the facility. The average weight of a fire engine or tanker truck is 20 to 30 tons. Are the access roads capable of safely handling that much weight? Will the access roads be plowed in the winter after a snow event? Will they be accessible in the spring and summer after a significant rain event?
- A large portion of a solar facility is covered in grass and natural vegetation. When the grass and vegetation are dead in the spring and fall, our department responds to several

large-scale grass fires in our Township and surrounding areas. These fires fueled by dead vegetation can spread very quickly. What steps will be taken to ensure that a grass fire does not occur? Again, will we have safe and acceptable access to every facility area to extinguish such a fire before the solar panels and transformers become involved?

- Most fire departments carry and refer to the “Emergency Response Guide” (ERG) book during the initial phases of hazardous material incidences. The book is published and distributed by the United States Department of Transportation. ERG books give first responders the ability to look up hazardous materials and identify the best way to mitigate a spill or fire; they also tell you how far to evacuate an area in the event of a spill or fire involving individual materials. A few of the many hazardous materials solar panels often contain include Cadmium, hexafluoroethane, and silicon tetrachloride. According to the ERG book, if any of these chemicals are involved in a fire incident, the recommended evacuation zone is ½ mile (2640 feet) in every direction.

Considering all these potential hazards and concerns, we, as a fire department, would propose the following stipulations IF a large-scale solar facility were to be allowed in Elkhart County.

- Solar facilities should be required to have an employee on-site 24/7 that can ensure the power is disconnected in the event of an emergency. This employee would also ensure the roads were always accessible for emergency personnel.
- Solar facilities should be required to have a contract with a specialized hazardous material team that is available for response 24/7 in the event of an emergency. This hazardous materials team must be credentialed to work in Elkhart County.
- Solar Facilities should be required to have on-site any specialized equipment or supplies needed to extinguish a fire involving any hazardous material on site.
- Solar facilities should be required to provide yearly training to the closest responding fire department and the surrounding fire departments that could potentially respond for mutual aid. This training should include a facility tour pointing out potential hazards and electrical disconnects. They should also provide each department with MSDS documents.
- Any access roads within the facility should be built to a specification that allows safe travel for multiple large fire apparatus. The facility should have numerous entrances to ease the response in case of a significant incident.
- Any solar panel, battery storage facility, or electrical substation should be constructed no less than 2000 feet from any adjacent structure to protect the community from possible hazardous material exposure.
- Any expense accrued outside of normal firefighting activities should be reimbursed to the fire department by the solar facility. These expenses include loss of gear, equipment, and apparatus due to contamination by hazardous materials.
- It would be our recommendation for the solar company to provide its own on-site fire brigade to remove the responsibility for response from already overburdened fire and EMS services.

In closing, we would like to thank you for considering our concerns when drafting ordinances and regulations for large-scale solar facilities. We want to urge you to think of these facilities not as pollution-free green energy sources but to consider them as multi-acre power facilities that pose several dangers to the community, emergency responders, and the environment. We feel the construction of a large-scale facility in rural communities would be an unwanted additional burden on rural volunteer fire departments already struggling with funding and personnel issues. While the probability of a large-scale hazardous material event is not high or imminent, it would be ignorant and foolish to think over 30 years that it is not at least possible.



Jason Dunlap – Chief



Brad Showalter – Assistant Chief