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MEMO

To: Ohio Power Siting Board

From: Chain Link Fence Manufacturers Institute

RE: Comments and recommendations in the matter of the Board's Review of Ohio Adm. Code Chapters 4906-1, 4906-2, 4906-3, 4906-4, 4906-5, 4906-6, and 4906-7.

Case No. 21-902-GE-BR0

Date: August 2, 2022

Introduction: The Chain Link Fence Manufacturers Institute (CLFMI) is the oldest perimeter security organization in the United States. Its members are manufacturers, engineers, suppliers, and other industry stakeholders. They work together to improve chain link security systems for safety, quality, and availability. CLFMI members are from the United States, Canada, Mexico, and the Caribbean. Collectively, CLFMI members produce @ 85% of the chain link products in North America.

The solar energy industry is critical to the economic health of many of CLFMI's member companies involved in producing and installing the chain link systems which are used to build and protect solar energy facilities in Ohio. CLFMI appreciates the opportunity to provide information that may be helpful as the OPSB considers rules regarding adverse business impacts, high wind velocities and perimeter fencing. Specifically, we wish to bring the Board's attention to three particularly important sections of the proposed rules.

1) **Attachment B, The Ohio Common Sense Business Initiative, Business Impact Analysis**, which reads (in part): Adverse Impact to Business 16. "Provide a summary of the estimated cost of compliance with the rule. a. Identify the scope of the impacted business community; and b. Identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance)

A recent survey of industry participants indicates that more than 60 companies are directly involved in the chain link industry with locations (headquarters, branches, suppliers, etc.) throughout the state. The industry employs more than 1,000 people in Ohio, and the annual sales value of chain link systems in Ohio is estimated at more than \$100 million dollars. Chain link systems and products are the most widely used and widely-specified¹ building materials in Ohio, and throughout in the United States, and represent more than 60% of the total \$8.2 billion U.S. fence market.²

As stated above, the solar energy industry is critical to the economic health of the many of the companies involved in producing and installing the chain link systems which are used to build and protect solar energy facilities in Ohio. In addition to the economic harm done to these companies and workers, the use of alternative perimeter security materials will raise the cost of these projects significantly, thereby negating some of the energy cost savings they are designed to provide.

2) Page 148, Sections G (1) and (3), which read:

(G) The following are applicable to solar facility applications.

Section G (1) High wind velocities. Solar facility applicants will provide an analysis of high wind velocities for the area, including the probability of occurrences and likely consequences of various wind velocities, and describe plans to mitigate any likely adverse consequences. A tabulation of maximum and median wind speeds recorded daily at weather stations or airports near the facility would be very useful in satisfying this requirement.

Mitigating adverse impact of high wind velocities: *The CLFMI-produced Wind Load Guide (WLG) is the most widely referred-to technical guide in the industry on this critical topic. This guide provides architects, specifiers, and engineers with information on the factors that influence the size and spacing of line posts on chain link projects. CLFMI's Technical Support Team is currently updating the WLG to include even higher wind velocities for projects in remote areas. Industry companies which produce inserts for chain link perimeter systems (to allow for both enhanced safety and enhanced aesthetics) have guidelines available to make any necessary adjustments to wind load calculations when their products are used to enhance projects*

Section G (3). Fencing. Solar panel perimeter fence type is to be both small-wildlife permeable and aesthetically fitting for a rural location. Such fencing requirement does not apply to substation fencing governed by the National Electric Safety Code or other similar safety code standards applicable to substations

Small-wildlife permeable and aesthetically fitting for a rural location: *Chain link perimeter systems are the most versatile fencing options available for protecting wildlife while preventing unwanted access and safety to solar projects. The ability for chain link to be installed on uneven surfaces provides opportunities to allow for small wildlife entrance and egress while at the same time providing deterrence to larger animals who may cause damage to panels and other equipment*

*There are several options for making chain link perimeter systems **aesthetically fitting** for rural areas. These options include:*

- a. Color-coated materials.*** *A color-coated chain link fence system is recommended where the enhanced appearance of polymer coated wire and additional corrosion resistance is desired. Available in black, green, and brown, the chain link fence system is designed to blend into various rural settings (see attachment 1).*
- b. Chain link inserts.*** *Chain link inserts increase privacy and security while enhancing the aesthetics of chain link fence systems. Materials available include metal, vinyl and foliage-like (see attachment 1).*
- c. Composite fencing systems.*** *Balancing aesthetics, economy, and value, composite fencing saves money by combining other fence types with chain link. This strategy recommends ornamental or other fencing options for the public-facing side of the project and chain link fence for the remaining fence for cost-control, strength, and safety.*

Fencing governed by the National Electric Safety Code or other similar safety code standards applicable to substations. CLFMI worked closely with electrical energy industry during its [NERC 2020](#) program to increase the reliability of the North American Power Grid. CLFMI-recommended guidelines are compliant with NERC requirements and ASTM standards. Ongoing testing and product development by the chain link industry will enable solar projects to comply with what are certain to become even more stringent requirements for perimeter security in the near future.

Additional important aspects of chain link perimeter systems include:

-Product availability. Chain link manufacturing facilities are located throughout North America, so products are less susceptible to material shortages, transportation costs, and supply chain delays.

-Environmental friendliness. Chain link is one of the “greenest” products available. It has an extremely high LEED rating (the most used green building rating system in the world). The materials used to make chain link are completely recyclable. Its flexibility contributes to the slope stability of the terrain and does not damage or change the original landform and vegetation growth conditions.

- Cost effectiveness. It is, by far, the most cost-effective perimeter protection product capable of meeting ASTM/industry standards. Installation and upgrading costs are also greatly reduced compared to other perimeter security products. Most importantly, chain link’s higher tensile strength³, anti-corrosive properties⁴ and specialized coatings create huge savings in repair and replacement costs, funds that can be used for other high-priority project needs.

-Security and safety reassurance: Chain link systems deliver the critical delay-deter-detect capabilities required by ASTM, NERC, and other safety standards-setting entities within the energy field⁵. It can also serve as a platform for electronic surveillance devices (cameras, sensors, etc.). Finally, chain link can adapt anti-intrusion devices such as higher fabric heights and accessory items to replace traditional barbed wire atop perimeter fencing to avoid any unforeseen safety concerns.

Once again, CLFMI thanks the Board for this opportunity to assist the OPSB in its Mission to support sound energy policies that provide for the installation of energy capacity and transmission infrastructure for the benefit of the Ohio citizens, promoting the state's economic interests, and protecting the environment and land use. We hope these suggestions will aid your efforts.

Please direct any questions to: Mark Levin, CAE, CSP CLFMI Executive Vice President

1. All CLFMI technical guidelines comply with ASTM standards and specifications
2. Grandview Research U.S. 2020-2027 Fencing Market Survey
3. The minimum wire tensile strength of chain link, 75,000 psi, is 2.14 times stronger than the tensile strength of the wire used to produce ASTM F3204 welded wire panels.
4. The chain link fabric zinc coating provides 20-33% greater lifetime protection to red rust when compared to the zinc coating applied to welded wire panels listed in ASTM F3204
5. Tested and Proven Performance, CLF-TP0211

Attachment 1 – Examples of chain link options aesthetically fitting to rural environments



Black chain link blends with the background and can be installed over uneven terrain



Inserts provide security, privacy, noise control, and aesthetic enhancement



The slatted chain link fence maintains the slope integrity, does not damage or change the original landform, does not alter vegetation growth conditions, and blends with the surroundings

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

8/2/2022 4:26:13 PM

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Case No(s). 21-0902-GE-BRO

Summary: Public Comment Comments and recommendations by the Chain Link Fence Manufacturers Institute in the matter of the OPSB's Review of Ohio Admin. Code, Chapters 4906-1, 4906-2, 4906-4, 4906-5, 4906-6, and 4906-7 electronically filed by Mr. Mark Levin on behalf of Chain Link Fence Manufacturers Institute and Mr. Mark Levin