LOURENCO GONCALVES
Chairman, President & Chief Executive Officer
Cleveland-Cliffs Inc.

February 2, 2023

The Honorable Jennifer Granholm
U.S. Secretary of Energy
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 2058

Dear Secretary Granholm:

It was an honor to have you visit Cleveland-Cliffs' state-of-the-art Toledo Direct Reduction plant in August 2022 and to meet with you at your office on October 3, 2022. I valued the discussion we had on a host of topics, including Cleveland-Cliffs' partnerships with the Department of Energy's (DOE) Better Climate Challenge Initiative and Better Plants program. We did not, however, have an opportunity to discuss Cleveland-Cliffs' important role as the current sole supplier of Grain Oriented Electrical Steel (GOES) and Non-Oriented Electrical Steel (NOES) in North America. GOES is used to form the cores of electric distribution and power transformers that support the U.S. electricity grid. NOES is used in the most highly efficient electric motors, including electric vehicle motors[1]. Cleveland-Cliffs produces these electrical steels at its Butler Works mill in Pennsylvania and Zanesville Works facility in Ohio. These mills provide 1,500 good-paying, middle class, union jobs with workers represented by the **United Auto Workers (UAW)** and support countless jobs in the transformer supply chain.

The electrical steel production capabilities of Cleveland-Cliffs' Butler Works and Zanesville Works operations serve a critical role in supporting U.S. energy and national security. These mills ensure that the United States is not reliant on foreign countries for materials needed to power our electric grid and to support vehicle electrification. The Department of Commerce has twice identified the preservation of these facilities as a national security imperative[2]. In early January, we were surprised to learn of a DOE *Notice of Proposed Rulemaking* (NOPR) containing a new distribution transformer efficiency standard. DOE's press release on the proposal included the following statement: "Almost all transformers produced under the new standard would feature amorphous steel cores, which are significantly more energy efficient than those made of traditional, grain-oriented electrical steel[3]." Cleveland-Cliffs will be an active participant

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[1] https://www.clevelandcliffs.com/news/news-releases/detail/564/cleveland-cliffs-introduces-new-motor-max-non-oriented

[2] https://www.commerce.gov/sites/default/files/the_effect_of_imports_of_steel_on_the_national_security_-_with_redactions_-_20180111.pdf
https://www.federalregister.gov/documents/2021/11/18/2021-24958/publication-of-a-report-on-the-effect-of-imports-of-transformers-and-transformer-components-on-the

[3] https://www.energy.gov/articles/doe-proposes-new-efficiency-standards-distribution-transformers

in the comment period on this NOPR, correcting the flawed assumptions about the purported benefits of amorphous metals over GOES.

If this rule is implemented as proposed, it will mean the end of the highest efficiency electrical steel production in the United States. **Nearly 70% of the electrical steels that Cleveland-Cliffs produces are used in distribution transformer cores. Without a market for this GOES, Cleveland-Cliffs production of both GOES and NOES would be completely unsustainable. The Company would have no choice but to discontinue the production of GOES for this market, GOES for the power transformer market and NOES needed for electric vehicles and other applications.** Such an outcome would handicap the investments in greening and modernization of the electric grid and would result in supply chain failure as bad or worse than what we have witnessed in microchips over recent years. In short, if promulgated, this efficiency standard would make the U.S. critically dependent on imports of foreign materials, weakening the resiliency of the electric grid and its transformer supply chain, ultimately threatening President Biden's critically important energy and climate goals. **This proposed standard also jeopardizes 1,500 livelihoods associated with GOES and NOES production in Pennsylvania and Ohio**.

Given all that is at stake, I respectfully request a meeting with you as soon as practicable to discuss this important matter. We at Cleveland-Cliffs value our partnerships with the Department of Energy and I am confident that we can work toward a solution that will increase distribution transformer efficiency while maintaining and further enhancing domestic GOES and NOES production.

Thank you for your consideration.

Most Sincerely,

Lourenco Goncalves
Chairman, President & Chief Executive Officer
Cleveland-Cliffs Inc.

cc: Mr. Wendell Carter, Executive Vice President, Technology
Ms. Traci Forrester, Executive Vice President, Environmental & Sustainability
Ms. Bridget Bartol, Deputy Chief of Staff, Office of the Secretary