



National Electrical Manufacturers Association

The association of electrical equipment
and medical imaging manufacturers
www.nema.org

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The Honorable Jeff Duncan
Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Diana DeGette
Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, D.C. 20515

NEMA Letter of Support for H.R. 4167: the “Protecting America’s Distribution Transformer Supply Chain Act.”

Dear Subcommittee Chairman Duncan and Ranking Member DeGette:

I am writing regarding today’s markup of H.R. 4167, the “Protecting America’s Distribution Supply Chain Act.” The National Electrical Manufacturers Association (“NEMA”) strongly supports this legislation as presented and encourages the committee to advance this legislation to help provide distribution transformer manufacturers with clarity around the production of this critical grid component.

NEMA represents more than 325 pro-growth companies which employ more than 300,000 American workers in more than 6,100 facilities in every state. Our members are the backbone of our electrical infrastructure, manufacturing electrical products, equipment and systems technologies, including critical grid components such as distribution transformers. This industry sector produces \$130 billion in shipments and \$38 billion in exports annually.

H.R. 4167 would establish a five-year delay on the Department of Energy (“DOE”) from amending current or implementing new energy efficiency standards for distribution transformers. This bill would maintain high efficiency in transformers while providing certainty and confidence to an already fragile and strained supply chain. It would ensure bureaucratic mandates do not threaten DOE’s own policy goals of grid modernization, clean energy development, and development of a robust, clean energy manufacturing sector in the name of process mandates.

NEMA has and will continue to support the manufacturing of highly efficient products, including transformers, which are necessary to achieve the broader social, environmental, and economic benefits sought through decarbonization and electrification. This includes the production of distribution transformers, which are already some of the most efficient and critical pieces of industrial equipment on the electric grid.

The electroindustry has a long and productive working relationship with DOE on developing practical and effective efficiency standards for distribution transformers. NEMA was a highly involved participant in DOE’s last update to these standards and our work was cited continuously throughout the final rule, which went into effect in 2016ⁱⁱ and remains valid today. Currently, the most efficient

product has a minimum rating of 99.55% efficiency and the least efficient distribution transformer being manufactured has a minimum rating of 97.70% efficiency. NEMA supports maintaining these high efficiency standards.

H.R. 4167 would remedy a current DOE proposed rulemakingⁱⁱⁱ seeking to establish even higher ratings on virtually all distribution transformers through the disruption of the manufacturing process during a time when the average order backlog for a new distribution transformer is at least 16 months. Prior to the pandemic, the average lead time for a new transformer order was two to four months. These transformers are highly customized and their availability is essential to the deployments of new investments under the Bipartisan Infrastructure Law and Inflation Reduction Act to modernize and upgrade the electrical grid. They also allow new housing starts, and support resiliency during extreme weather events and load surges that are expected to accelerate over time.

DOE's approach to drive further efficiency gains is to require a wholesale shift in the source material used to make a transformer's core, from grain oriented electrical steel ("GOES") to amorphous steel. Currently, less than five percent of transformers are made using amorphous steel and there is only a single domestic supplier of this material. There is simply not enough domestic amorphous steel, nor will there be enough by DOE's implementation date of 2027, for the entire manufacturing sector to shift their supply chains to accommodate this change. If implemented, this new rule would dramatically further exacerbate the existing long production lead-times for transformers.

Furthermore, the shift to amorphous steel production would not be a quick or an easy one. Modern production lines have been largely modified and specialized to incorporate GOES; mandating manufacturers to use amorphous steel will require a significant investment in product development to broadly commercialize this material. Doing so would also require substantial time, in both revamping the physical supply line itself as well as retraining technicians to use the new materials. This diversion of resources will add to the prolonged lead time average and further impair the supply/demand imbalance.

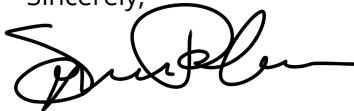
The availability of distributions transformers is so critical that last June, the President of the United States issued a determination through the Defense Production Act ("DPA") that distribution transformers production be prioritized and subsequently tasked DOE with implementing this order. Taking DOE action that would cause further deterioration in distribution transformer availability with minimal efficiency gains is antithetical to this administration's broader electrification, climate, and economic goals.

DOE was told through comments from NEMA and other interested parties to its request for information on the DPA that a primary reason for these prolonged production times was due to a lack of human capital.^{iv} Transformers are still overwhelming hand-made products, requiring skilled technicians to individually wind cores for a unit to meet the efficiency requirements of an order. Addressing the transformer workforce shortage should be a whole-of-government approach if these products are going to be delivered at scale and on time if policy goals are to be realized.

Should DOE's proposed rule become final, it will undoubtedly add many months to these lengthy lead time averages. NEMA's support of H.R. 4167 is to give manufacturers ample time to appropriately adjust their processes and work with their supply chain vendors and partners to ensure that order volumes can be fulfilled more quickly. America needs more distribution transformers so that the nation can continue to be a global leader in combating climate change, to make our communities more resilient to devastating natural disasters, and to help decarbonize the economy and environment.

NEMA wishes to continue collaborating with DOE in finding practical pathways to make electrical equipment more efficient and better. But given the supply chain obstacles currently facing this nation, any policy that increases the production length of this equipment will threaten these other goals and should be delayed.

Sincerely,



Spencer Pederson

Senior Vice President, Government Affairs

ⁱ [Text - H.R.4167 - 118th Congress \(2023-2024\): Protecting America's Distribution Transformer Supply Chain Act | Congress.gov | Library of Congress](#)

ⁱⁱ https://www1.eere.energy.gov/buildings/appliance_standards/pdfs/distribution_transformers_nopr_notice.pdf

ⁱⁱⁱ <https://www.federalregister.gov/documents/2023/01/11/2022-28590/energy-conservation-program-energy-conservation-standards-for-distribution-transformers>

^{iv} https://www.nema.org/docs/default-source/advocacy-document-library/nema-gridwise-comments-doe-dpa-rfi-11.30.22.pdf?sfvrsn=2969fc7b_4