

## Comment to Executive Order EO 14017

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To: Department of Energy

Re: Executive Order EO14017 - Comment

TBEA USA Corporation whole heartedly support the continued security of the United States Critical Electric Infrastructure. In this spirit, TBEA USA Corporation works with its customers (US power companies) to deliver large power transformers and reactors which meet all specification and requirements provided by its customers.

In our opinion, the continued security of the United States Critical Electric Infrastructure can best be accomplished by following the Supply Chain Best Practices specified in National Electrical Manufacturers Association's NEMA Guideline Document CPSP 1-2021 and National Institute of Standards and Technology's NIST Special Publication 800-161 "Supply Chain Risk Management Practices for Federal Information Systems and Organizations".

World wide manufacturers of Large Power Transformers, Auto transformers, Generator Step up Units, Reactors, Porcelain and resin EHV Bushings among other large electrical equipment follow the same industry standards; either IEC, IEEE, NEMA, NIST, etc. and very detailed and rigid Specifications submitted by the users (US customers).

Transformers per se are passive elements whose only purpose is to raise or lower the voltages. The basic materials for manufacturing any transformer or Reactor are Silicon Steel, Structural Steel, Copper conductor, insulation, nonconductive hardware, Bushings and mineral Oil. No electronics are needed to have a basic transformer or Reactor to operate, this was the way system operated up until 1980's.

Upon the advancement of the communication technologies, different accessories have been added to the Power Transformers and Reactors to monitor voltages, change voltages, monitor equipment performance, etc. operations that in the past were done manually. Accessories, including those capable of communications, are defined and specified by the user (US Customers), not by the transformer manufacturer.

No reputable Transformer Manufacturer can install different accessories or components to the large power transformers or Reactors without the

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knowledge of the user who specifies all the accessories in detail. Since all large Power transformers and Reactors are monitored and inspected by the users (US Customers) or user's representatives during the design, materials selection, manufacturing, testing, shipping, field testing and commissioning.

The above applies to all large power transformers and reactors no matter where they are manufactured; including transformers and reactors manufactured in the USA and by the USA manufacturers.

This executive order will only result in excluding some manufacturers and shift business to European, Canadian, Japanese, South Korean, Mexican or Brazilian manufacturers. That will result in reducing free market competition and raise prices to US customers (electric power companies) and ultimately to their customers (US consumer).

This executive order may also be viewed in some circles as a trade barrier/restriction by another name.

Unfortunately this executive order will not result in affecting the security of the bulk power system unless, as stated earlier in this response, the Supply Chain Best Practices specified in National Electrical Manufacturers Association's NEMA Guideline Document CPSP 1-2021 and National Institute of Standards and Technology's NIST Special Publication 800-161 "Supply Chain Risk Management Practices for Federal Information Systems and Organizations" are followed meticulously by all.

There are steps which can be taken to further enhance security of the United States critical electric infrastructure without reducing the worldwide competition for large power transformers and reactors. Such as requiring all manufacturers of large power transformers and reactors to include electronic equipment for control or monitoring the transformer and it's components be only accessed from non adversarial countries. We can even go one step further by requiring that these devices are programmed at the manufacturers location and shipped direct to the jobsite for installation, therefore bypassing the potential of the adversarial country programming the devices to cause an impact on the US grid.

To properly address this security issue; US government should consider to create a Grid Components Security Commission that would have as part of their responsibility the task of evaluating all manufacturers from the adversarial counties to identify acceptable manufacturers. This would create a better business environment between the US and adversarial countries by having potential suppliers working directly with the department of the US government that has the potential of restricting a manufacturer from doing

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business in the US.

There may be companies that realistically present a threat to our grid, but the majority of companies are like TBEA, a privately owned business, who just wants to expand their market worldwide and are legitimate above board compliant companies. TBEA would welcome the opportunity to work directly with an organization that evaluates foreign manufacturers giving us a chance to prove that we can work with them to assure that we are on board with doing everything within our power to participate in protecting the US Grid and the electrical grid worldwide.