
Description: The objective of this report is to examine the U.S. market for High and Extra High Voltage Transformers in terms of the risk and impact of Solar Storms and EMP Attacks. The thesis of this report is that the U.S. is not prepared in the event of a major Solar Storm or EMP attack to quickly restore the electric grid, due to its inability to replace High and Extra High Voltage transformers. High and Extra High Voltage transformers are the most critical component of the U.S. electrical infrastructure. There are thousands of High Voltage transformers installed in the United States today, but only a small number of these are very large units rated 345 kV and above. The market for these transformers is very small and imports accounted for most of U.S. consumption of these products in 2015. Further increasing the risk, there are only a few Extra High Voltage transformers available as spares.

Finally, there are only a small number of U.S companies still producing High and Extra High Voltage transformers. The other suppliers are foreign companies operating U.S. plants. In other words, the U.S. can no longer supply most of its High and Extra High Voltage transformer needs, and if there was a major Solar Storm or EMP Attack, there are only enough spares to replace a small percent of the installed base. As a result, in the event of a major Geomagnetic Storm or EMP Attack, the U.S. will not be able to restore its electric grid for months to years.

Key information presented in this report includes analysis of:

- Critical Infrastructure Protection.
- U.S. Energy Sector.
- U.S. Electric Power System.
- High Voltage Transformers.
- High-Impact, Low-Frequency Events.
- Solar Storms.
- EMP Attacks.
- U.S. Extra High Voltage Transformer Installed Base.
- Investment Trends in U.S. Transmission Infrastructure.
- U.S. High and Extra High Voltage Transformer Market.
- Profiles of U.S. based producers of High and Extra High Voltage transformers.

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