

References to some V. Gurevich publication about High Altitude Electromagnetic Pulse (HEMP) and protection means



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Approved for public release; distribution is unlimited.

EMP/GMD Phase 0 Report A Review of EMP Hazard Environments and Impacts

October 24, 2016

Bibliography

Gurevich, V. (2011). Protection of power transformers against geomagnetically induced currents. *Serbian Journal of Electrical Engineering*, 8(2), 333-339.

Gurevich, V. (2015). Protecting power equipment against magnetohydrodynamic effects (MHD) of electromagnetic pulses (EMP). *Serbian Journal of Electrical Engineering*, 12(3), 321-332.

Gurevich, V. (2015). Technologies and Components That Protect Digital Relays from Electromagnetic Pulse. *International Journal of Research Studies in Electrical and Electronics Engineering (IJRSEE)*, Volume 1(Issue 1), 18-28.



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Strategies, Protections, and Mitigations for the Electric Grid from Electromagnetic Pulse Effects

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Figure 1. HEMP Pulseⁱ

ⁱ <http://www.gurevich-publications.com/conspectus/theory.html>



Comments on Draft Outline for the Proposed Joint U.S.-Canadian Electric Grid Strategy

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³ Some components of protective equipment in neutral blockers for solar storms will require EMP hardening against ultrafast E1 pulses if that equipment is intended to protect against both solar storms and man-made EMP. See e.g. [Vladimir Gurevich](#), "Impacts of Magnetohydrodynamic Effect of HEMP on Power Equipment: Problems and Solutions," *Int'l J. Applied Sci. Engr.* (2016) 14: 49-58, esp. pp. 55-56. The specific sub-components cited by [Dr. Gurevich](#) as vulnerable to E1 pulses are, according to Emprimus, already hardened to protect against E1 pulses. Independent third-party testing of protective equipment should be a component of any grid protection strategy.

2016 IEEE PES General Meeting

Power System Solar Magnetic Disturbance Lecture
Reference List

IEEE PES 2016 General Meeting

Communications & Power System Solar Magnetic Disturbance Lecture

Reference List

(Organized Chronologically By Subject)

Wayne H. Hagman

July 20, 2016

[E23] [Vladimir Gurevich](#), "Protection of Power Transformers Against Geomagnetically Induced Currents," *Serbian Journal of Electrical Engineering*, Vol. 8, No. 2, November 2011, pp. 333-339.

Grid Resiliency From Electromagnetic Threats; the Infrastructure Plan Provides an Opportunity for Substantial Investment



Reference Sources:

- 1) Report of the Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack, 2004
- 2) Report of the Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack, 2008
- 3) Threat Posed by Electromagnetic Pulse (EMP) Attack – Committee on Armed Services House of Representatives: 110th Congress, Second Session, July 10, 2008
- 4) Large Power Transformers and the U.S. Electric Grid – Infrastructure Security and Energy Restoration Office of Electricity Delivery and Energy Reliability – U.S. Department of Energy, 2012
- 5) Maloof, F. Michael: A Nation Forsaken, EMP: the Escalating Threat of an American Catastrophe, Wind Books, 2013
- 6) Gurevich, Vladimir; Protection of Substation Critical Equipment Against Intentional Electromagnetic Threats, Wiley, 2017
- 7) Trump, Donald J: National Security Strategy of the United States of America; December 2017
- 8) EMPrimus; SolidGround™ GIC & EMP Neutral Blocker presentation, January 9, 2018



Securing the Electrical System in Israel Proposing a Grand Strategy

Dan Weinstock and Meir Elran

15 דוגמה יוצאת דופן היא ספר שיצא לאחרונה, שמחברו כתב כמה מאמרים מעניינים בנושא הנדון:
V. Gurevich, *Cyber and Electromagnetic Threats in Modern Relay Protection*, (CRC Press, 2014).

53 V. Gurevich, "The Hazards of Electromagnetic Terrorism," *Public Utilities Fortnightly*, June, 2005, <http://www.fortnightly.com/fortnightly/2005/06/hazards-electromagnetic-terrorism>