

**Commission to Assess the Threat to the United States from  
Electromagnetic Pulse (EMP) Attack**  
**Established by Congress in FY2001 National Defense Authorization Act Title XIV**  
**Continued FY2016 NDAA Section 1089**

April 20, 2017

The Honorable Rick Perry  
Secretary of Energy  
U.S. Department of Energy  
Washington, D.C. 20585

Dear Secretary Perry:

Congratulations on your confirmation as Secretary of Energy. No doubt you are aware of President Trump's promise to protect the nation's electric grid and other critical infrastructures from cyber-attack and "all other threats."

As Chairman of the statutory Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack, originally established by Congress in the FY2001 National Defense Authorization Act under Title XIV, and continuing today (most recently re-established in the FY2016 NDAA, Section 1089), the Commission would like to meet with you to discuss the Department of Energy plans, programs, resources, and milestones to protect our nation from the current, existential threat from natural and manmade EMP. The Commission would like to include a discussion of the priority and plans the Department of Energy has to support the Department of Homeland Security in implementation of the Critical Infrastructure Protection Act.

Under the Critical Infrastructure Protection Act (FY 2017 National Defense Authorization Act, Section 1913, "EMP and GMD Planning, Research and Development, and Protection and Preparedness" p. 1762) the Department of Homeland Security is directed: to develop plans to protect the electric grid and other critical infrastructures from EMP; to educate and train federal, state and local emergency planners and first responders on the EMP threat; and to conduct research and development to mitigate EMP.

The EMP Commission would like to be of assistance to the Department of Energy and to DHS. Some salient points from our analysis and recommendations to date:

--Nuclear EMP attack is the ultimate cyber weapon in the military doctrines and plans of Russia, China, North Korea, and Iran for Combined-Arms Cyber Warfare that they see as a decisive new Revolution in Military Affairs.

- Protecting the grid from the worst threat—nuclear EMP attack—can also mitigate lesser threats, including natural EMP from solar storms, non-nuclear EMP from radiofrequency weapons, cyber-attacks, physical sabotage, and severe weather.
- State electric grids can be “islanded” by installation of surge arrestors, blocking devices, faraday cages and other devices to protect individual States, even though they may be part of a larger regional electric grid, from a prolonged catastrophic blackout induced by EMP or other causes. For example, Texas State Senator Bob Hall has introduced legislation to EMP harden the Texas electric grid.
- The Commission is very concerned that the 2014 Obama Administration intelligence community assessment of nuclear EMP is profoundly erroneous, and perhaps the worst work ever produced on EMP, and that has been used to thwart efforts to protect the nation against nuclear EMP attack by dismissing the threat, despite overwhelming evidence to the contrary.
- The Commission is very concerned over misleading and erroneous studies by the North American Electric Reliability Corporation (NERC) and others that grossly underestimate the natural EMP threat from solar storms, and dangerously, have become the basis for grossly inadequate standards for EMP/GMD protection approved by the Obama Administration’s U.S. Federal Energy Regulatory Commission (FERC).
- The Commission is also concerned over misleading and erroneous studies recently completed by industry’s Electric Power Research Institute, in cooperation with Obama Administration holdovers in the Department of Energy, that grossly underestimate the nuclear EMP threat.

*The last point above is one of the most important purposes of this letter—to advise you that under the Obama Administration the Department of Energy has been part of the problem, not part of the solution to protecting the nation’s electric grid from the existential threat that is EMP. Attached find a letter from the Congressional EMP Caucus to then Secretary of Energy Moniz protesting the past EPRI-DOE dismissal of the nuclear EMP threat to the grid—that continues even now at DOE.*

We look forward to cooperating with the Department of Energy to help protect our nation’s critical infrastructures from the catastrophic consequences of EMP and other threats.

Sincerely,



Dr. William R. Graham  
Chairman  
Commission to Assess the Threat to the United States from  
Electromagnetic Pulse (EMP) Attack  
703-298-2480  
WRGraham1@outlook.com

**Congress of the United States**  
**Washington, DC 20515**

December 21, 2016

The Honorable Ernest Moniz  
Secretary of Energy  
Forrestal Building, 1000 Independence Avenue, SW  
Washington, D.C. 20585-1000

Dear Secretary Moniz:

The Department of Energy is presently embarked on a joint project with the private Electric Power Research Institute (EPRI) to assess the threat to the electric grid from a nuclear electromagnetic pulse (EMP) attack and to make recommendations. Patricia Hoffman, Assistant Secretary for the Office of Electricity Delivery and Energy Reliability, is reportedly managing this \$6 million dollar project for DOE.

While it is highly commendable that DOE is concerned about the EMP threat to the electric grid, we have grave concerns about the objectivity and competency of EPRI and of many of the individuals associated with this project.

EPRI is funded by the electric power industry and closely affiliated with the North American Electric Reliability Corporation (NERC) and the Edison Electric Institute, which for years have lobbied against bills in Congress and among the States designed to protect electric grids from natural and manmade EMP. These organizations, including EPRI, have argued that the electric power industry has no responsibility to protect the grid from nuclear EMP attack – that this is a Defense Department responsibility, to be accomplished through missile defense or preventive war. They also argue, incorrectly, that the risk of a nuclear EMP attack is so low that the threat can be safely ignored.

In 2012, EPRI helped NERC produce a highly controversial report that dismissed the natural EMP threat to the grid from a geomagnetic super-storm, arguing that it was not necessary for the U.S. Federal Energy Regulatory Commission (FERC) to ask for a new standard to protect the electric grid from natural EMP (GMD). Independent scientists, including those who formerly served on the Congressional EMP Commission, proved the EPRI-NERC report was erroneous “junk science” in a technical hearing before the U.S. FERC.

EPRI, having failed to stop U.S. FERC from asking NERC to develop a new standard to protect the grid from GMD, then helped NERC develop a GMD Standard that is criticized by independent experts as grossly underestimating the real threat from solar storms.

Apparently, members of the same EPRI team that gave U.S. FERC a "hollow" GMD Standard are now participating in the DOE-EPRI project to assess the nuclear EMP threat to the electric grid. Indeed, comments to the press by some of these team members indicate that, even before the DOE-EPRI project began its assessment, they have already made up their minds to dismiss the nuclear EMP threat.

Moreover, the DOE-EPRI project team members mentioned in press reports have no real expertise in nuclear EMP phenomenology, have never worked professionally on EMP effects, testing, or protection for the Department of Defense, the Intelligence Community, or defense contractors – where the locus of real expertise on EMP resides.

Most worrisome, the DOE-EPRI project on nuclear EMP attack shows no interest in benefitting from the expertise of the Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack. The EMP Commission spent nearly a decade (2001-2008) assessing the nuclear EMP threat to electric grids and other critical infrastructures, and has been re-established to continue its excellent work.

The EMP Commission comprises the foremost scientific and strategic experts on EMP in the Free World, including, to name just a few:

--Dr. William Graham, who was on the DOD team that first discovered the high-altitude EMP phenomena following the 1962 STARFISH PRIME nuclear test, served as Science Advisor to President Reagan, Acting Administrator of NASA, and Chairman of the EMP Commission.

--Dr. John Foster, former Director of Lawrence Livermore National Laboratory who has contributed to the design of most of the nuclear weapons presently in the U.S. inventory.

--Ambassador R. James Woolsey, former Director of Central Intelligence.

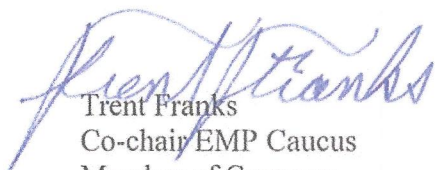
--Dr. William Radasky, who holds the Lord Kelvin Medal for developing Electromagnetic Protection Standards for the European Technical Commission, and is one of the few people who has actually protected electric grids from nuclear EMP effects.


In 2010, former Secretary of Defense James Schlesinger and Fred Ikle (former Director of the U.S. Arms Control and Disarmament Agency) met with Dan Poneman, then Deputy Secretary of Energy, urging him to adopt the EMP Commission to help DOE protect the national electric grid. Schlesinger, Ikle, and Poneman had just completed service together on the Congressional Strategic Posture Commission, chaired by former Defense Secretary William Perry, that recommended the electric grid should be protected from nuclear EMP attack as a matter of high priority.

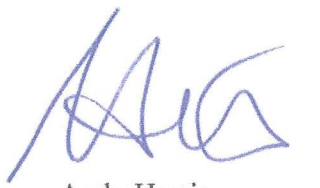
Deputy Secretary Poneman directed Patricia Hoffman to investigate if there was any way DOE could adopt or partner with the EMP Commission, to take advantage of its great expertise. Subsequently, Hoffman would not even return phone calls from Schlesinger or Ikle and refused the offer to adopt or partner with the EMP Commission.

We strongly recommend – and if necessary shall pursue legislative action to direct – the EMP Commission be put in charge of the DOE-EPRI project to assess the nuclear EMP threat to the electric grid. The EMP Commission should be assigned a supervisory role to manage and oversee this project.

Most sincerely,

  
Trent Franks  
Co-chair EMP Caucus  
Member of Congress

  
Doug Lamborn  
Co-chair EMP Caucus  
Member of Congress

  
Andy Harris  
Member of Congress

  
Steve King  
Member of Congress

  
Jeff Duncan  
Member of Congress