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TESTIMONY BEFORE THE
COLORADO STATE LEGISLATURE
HOUSE TRANSPORTATION AND ENERGY COMMITTEE
IN SUPPORT OF REP. JOANN GINAL'S BILL
"FORTIFICATION OF COLORADO'S LIFELINE INFRASTRUCTURE
TO WITHSTAND LARGE-SCALE ELECTROMAGNETIC
DISTURBANCES"
April 29, 2015**

***THE FAILURE TO PROTECT AMERICA FROM AN
ELECTROMAGNETIC PULSE
(EMP)***

The EMP threat from nature and man is not merely theoretical, but a real existential threat to the United States, and we are running out of time to protect our electric grid and other critical infrastructures. Colorado should not wait for Washington or for the electric power industry, but should act now to protect its people and their lifeline infrastructures--the electric grid and communications--from the catastrophic consequences of a natural or manmade EMP event.

I urge you to enact Rep. Joann Ginal's bill to fortify Colorado's lifeline infrastructure against natural and nuclear EMP to safeguard the lives and communities of the people of Colorado, and to set a good example of leadership for other states to follow.

NASA reported in July 2014 that a Carrington-class coronal mass ejection capable of making a geomagnetic super-storm, which would blackout electric grids and critical infrastructures worldwide--a blackout lasting years or perhaps permanently--narrowly missed the Earth in July 2012.

NASA also estimated that the likelihood of recurrence of a Carrington-class geomagnetic super-storm is 12 percent per decade, which virtually guarantees that the world will encounter this civilization-ending threat within our lifetimes or that of our children.

A recently translated Iranian military textbook, published by the Iranian Army's most prestigious think tank and academy for senior military officers, describes

a revolutionary new way of warfare that focuses on destroying national electric grids by EMP and other means--and endorses a nuclear EMP attack against the United States as a war winning strategy.

A March 2015 article by former senior Reagan Administration officials, who were among President Reagan's close advisors credited with helping win the Cold War, warns that Iran probably already has nuclear warheads and missiles capable of delivering them against the United States.

The article notes that a warhead can be orbited like a satellite on a south polar trajectory to evade U.S. National Missile Defenses, and make a surprise nuclear EMP attack. The U.S. has no Ballistic Missile Early Warning Radars or missile interceptors facing south to detect or intercept an EMP attack coming from that direction--which apparently has been practiced by Iran with satellites four times.

North Korea has also apparently practiced making a nuclear EMP attack against the U.S. by satellite orbited on a south polar trajectory in April 2013, during the crisis when dictator Kim Jong-Un was threatening to make a nuclear missile strike on the United States.

Recently, on April 7, 2015, Admiral William Gortney, the Commander of the North American Aerospace Defense Command, announced that NORAD is moving back into Cheyenne Mountain, and spending \$700 million to further harden the mountain against EMP, to protect NORAD from the nuclear EMP threat from North Korea and others.

Yet nothing is being done by the U.S. Government to protect the national electric grid and the American people from the catastrophic consequences of a nuclear EMP attack or natural EMP from a severe solar storm.

The U.S. Federal Energy Regulatory Commission has done worse than nothing by approving a hollow standard for protection from natural EMP, proposed by the North American Electric Reliability Corporation (NERC), that has been criticized by independent scientists--including our nation's foremost experts who served on the EMP Commission--as grossly inadequate to protect the grid from a solar super-storm.

NERC, that represents the interests of the privately owned electric utilities, has publicly stated and testified to Congress that it is not their responsibility to

protect the electric grid from EMP attack--and they are doing nothing to protect the grid from natural or manmade EMP.

The Edison Electric Institute in a recent publication actually asserted that it would be better to protect the national electric grid from EMP attack by launching preventive wars, rather than raise electric rates to pay for EMP protection, which the U.S. Federal Energy Regulatory Commission has estimated would cost the average ratepayer an increase of about 20 cents annually.

I think the American people would rather pay a little more for electricity instead of sending their sons and daughters off to fight preventive wars against Iran and North Korea.

Fortunately, where Washington has failed to act, some of the states are acting to protect their electric grids from EMP. So far, Maine, Virginia, Arizona, Florida, Texas, and Colorado have enacted or introduced bills or other measures to protect their peoples from EMP.

The White House and the Congress should hang their heads in shame that it has become necessary for the states to fill the national security vacuum caused by the lack of leadership in Washington.

In closing, I am asked to convey from Ambassador R. James Woolsey, former Director of Central Intelligence, that he supports Rep. Joann Ginal's bill, and joins me in urging its enactment by the Colorado State Legislature.

Former CIA Director Woolsey regrets that he could not be here to address you personally, but offers written testimony for you and for the record.

The gist of his testimony is that in the military doctrines of potential foreign adversaries such as Iran, North Korea, China and Russia, a nuclear EMP attack is the ultimate cyber threat and is part of their planning for all-out cyber warfare or information warfare against the United States. Adversary planning for cyber warfare includes computer viruses and hacking combined and coordinated with physical sabotage and EMP attack--EMP being the worst and most damaging of these threats.

Protecting lifeline infrastructures from the worst case threat--a nuclear EMP attack--will also mitigate lesser threats, including cyber attacks, physical sabotage, and severe weather.