

TESTIMONY HB22-1404 -- Colorado Critical Infrastructure Resiliency Initiative

Before the House Committee on Energy & Environment on April 28, 2022

EMP Threats and the Colorado Critical Infrastructure Resiliency Initiative (CCIRI) Overview

Protecting Colorado Critical Infrastructure especially the electric grid from EMP threats and other hazards is critical to do as soon as possible in this time of a possible nuclear war and an overdue solar superstorm. EMP threats include combined arms warfare; cyber, EMP and sabotage. The Colorado Critical Infrastructure Resiliency Initiative (CCIRI) would protect this infrastructure in Colorado to mitigate serious threats including EMP! This initiative is a project that is ready to begin now, as soon as Federal funding is secured, and when completed would protect over 90% of Coloradans from a long-term electrical outage or blackout.

Colorado may suddenly find themselves on the frontlines of a Cyber-EMP World War III.

Governors and State legislators of all 50 States of the United States must become proactive in protecting the electric grids within their States from electromagnetic pulse (EMP) and Cyber Warfare—since the federal government has failed “to provide for the common defense” against these existential threats.

The White House and Congress have tried to protect the nation’s electric grids and other life-sustaining critical infrastructures through executive orders and legislation. But federal departments, agencies, and regulatory bodies have all failed to make our nation safe from EMP and Cyber Warfare.

Russia, China, North Korea, other hostile nations or terrorists, may target an individual U.S. State for EMP or cyber-blackout as a demonstration of their power and to coerce Washington into surrender. For example, in April 2021, during the previous big crisis between Russia versus the U.S. and NATO over Ukraine, Moscow’s state-run TV broadcast to the world that: “War is inevitable...it will be a Cyber War.” Florida and its electric grid were specifically threatened with a state-wide blackout, to deter the U.S. from helping Ukraine. In January 2022, during the current international crisis over Ukraine, a member of the Russian Duma (equivalent to U.S. Congress) proposed warning Washington that Moscow is serious about nuclear war over Ukraine—by launching a hypersonic warhead to detonate on or over the Nevada nuclear test area that could blackout Nevada, Colorado or the entire Western Grid.

Electromagnetic Pulse (EMP) Protection for the State of Colorado

An electromagnetic pulse (EMP) from a solar superstorm or nuclear or non-nuclear weapon poses an existential threat to the people of the United States and the citizens of Colorado:

—A rare but inevitable solar superstorm, like the 1859 Carrington Event, can blackout electric grids and life-sustaining critical infrastructures worldwide, putting at risk the lives of billions. NASA estimates the likelihood of recurrence of another Carrington Event is 12% per decade.

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–Russia, China, and North Korea all have capability to make a nuclear EMP attack against the United States, and all have plans to do so as part of their military doctrine for Cyber Warfare. Iran, the world’s leading sponsor of international terrorism, is nearing the capability to make nuclear weapons, according to some analysts already has nuclear weapons and the capability to make a nuclear EMP attack, which is also part of Iran’s military doctrine for Cyber Warfare.

–Non-nuclear EMP weapons, also called Radio-Frequency Weapons, are readily available, can be made or purchased by terrorists, criminals, or unstable individuals, and used to blackout electric grids.

–The Congressional EMP Commission found that protecting against the worst threat—nuclear EMP attack—will mitigate all lesser threats, including solar storms, non-nuclear EMP weapons, cyber-attacks, physical sabotage, and severe weather such as tornados. The EMP Commission recommended following an “all hazards” strategy, protecting electric grids from EMP and other threats whenever possible.

The Colorado Critical Infrastructure Resiliency Initiative (HB 22-1404), which was introduced in the Colorado State Legislature on April 26, 2022 would ensure that the most important components in the Colorado electric grid and other critical infrastructures described below are hardened to survive all grid-down events (Electromagnetic Pulse; Nuclear and Non-Nuclear), directed physical attacks, weather-related and cyber terrorist attacks that could damage or destroy the electrical power grid for months, if not years. Funding will be sought from any sources such as the Federal Infrastructure Investment and Jobs Act (IIJA). Thus, it allows power and utility companies to recoup their expenses for grid resiliency protection.

Here are some features of the legislation that I believe are important. The bill

1. Provides for the development of design solutions needed to secure the state’s critical infrastructures; the power generation, transmission, and distribution grid, water (clean water supply and wastewater treatment) facilities, oil and natural gas networks, and the state’s telecommunications infrastructure.
2. Establishes a Critical Resiliency Infrastructure Board (CRIB) with qualified representatives knowledgeable about Critical Infrastructure Protection to provide management, coordination with the IIJA, a conduit for Federal and other possible funding sources, and oversight of Colorado’s Infrastructure enhancement program.
3. Authorizes power and utility companies to work with Department of Defense (DoD) engineering experts, that have experience hardening military infrastructure and leverage

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hundreds of millions of dollars of lessons learned and proven technologies transferred from the DoD into the civilian sector.

4. Enables the CRIB to work with power and utility network designers and electromagnetic engineering hardening experts to develop a minimal architecture providing 90% of the Colorado population with resilient power, water, oil and natural gas, and telecommunications on a minimum of a 90% Rolling Brown Out operational capability.
5. Provides for a ten-year implementation timeframe; Phase I: first two years for preliminary planning and engineering design solutions and then Phase II: the last eight years to harden the targeted infrastructures incrementally based on design solutions, and priorities developed in the first two years.

Thank you for the opportunity to provide this testimony in support of HB 22-1404, Colorado Critical Infrastructure Resiliency Initiative.

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