

Date of Hearing: June 28, 2018

ASSEMBLY COMMITTEE ON GOVERNMENTAL ORGANIZATION

Adam Gray, Chair

SB 1076 (Hertzberg) – As Amended June 21, 2018

SENATE VOTE: 38-0

SUBJECT: Emergency preparedness: electrical utilities: electromagnetic pulse attacks and geomagnetic storm events

SUMMARY: Requires the Governor's Office of Emergency Services (CalOES) to develop preparedness recommendations to harden the critical infrastructure of electrical utilities against an electromagnetic pulse (EMP) attack, geomagnetic storm event, or other long-term outage. Specifically, **this bill:**

- 1) Requires CalOES, to update the State Emergency Plan to include cost-effective preparedness recommendations to feasibly harden the critical infrastructure of electrical utilities against an EMP attack, geomagnetic storm event, or other potential cause of a long-term outage.
- 2) Clarifies that nothing in the bill limits the authority or responsibilities of the California Utilities Commission (CPUC) with respect to its disaster and emergency preparedness plans.
- 3) Makes legislative findings and declarations pertaining to the threat that EMP attacks, geomagnetic storms, and other disasters pose to vital parts of California's electrical grid.

EXISTING LAW:

- 1) Establishes OES in the office of the Governor and provides that OES is responsible for the state's emergency and disaster response services for natural, technological, or manmade disasters and emergencies.
- 2) Specifies those events constituting a state or local emergency, and provides for specified activities in preparation for, or response to, those events.
- 3) Requires OES to perform a variety of duties with respect to specified emergency preparedness, mitigation, and response activities in the state.
- 4) Requires the Governor to coordinate the preparation of plans and programs for the mitigation of the effects of an emergency by the political subdivisions of the State of California, such plans and programs to be integrated into and coordinated with the State Emergency Plan (SEP), and the plans and programs of the federal government and of other states to the fullest extent possible.
- 5) Requires OES to update the SEP on or before January 1, 2019, and every five years thereafter.

- 6) Establishes the California Public Utilities Commission (CPUC), and requires the CPUC to establish standards for disaster and emergency preparedness plans, including but not limited to methods of working to control and mitigate an emergency or disaster and its aftereffects.

FISCAL EFFECT: According to the Senate Appropriations Committee, pursuant to Senate Rule 28.8, negligible state costs.

COMMENTS:

Purpose of the bill: According to the author, “California has evolved as an economy over the last century. Going from a manufacturing economy to a services-based economy has created a crucial need for a sustainable energy source. Centuries ago, Europe and North America were struck by a large burst of energy from the Sun, known as the “Carrington Storm,” which caused telegraph systems to fail. In our modern economy, we need to prioritize preparation for a similar event occurring. We need electric utilities to be prepared because long periods without electricity in California would result in billions of dollars of economic activity.”

Background: An EMP is a burst of electromagnetic radiation caused by a nuclear explosion. Although the likelihood of such an attack remains low, if an EMP could cause electromagnetic “shocking” of electronics and cause stressing of our electrical systems. According to the federal Commission to Assess the Threat to the United States from EMP Attack (Commission), the electromagnetic fields produced by weapons designed to produce EMP have a high likelihood of damaging our electrical power systems, electronics, and information systems upon which American society depends. Depending on the size and specifics of the attack, unprecedented failures of major infrastructure could result.

A geomagnetic storm, commonly referred to as a solar storm, is a disturbance of the Earth’s magnetosphere caused by a solar wind shock wave that interacts with the Earth’s magnetic field. Like regular weather, most of these storms are mild, but occasionally an unusually strong storm can strike Earth. The biggest solar storm on record occurred in 1859, named the Carrington Event, and was strong enough that telegraph operators reported sparks leaping from their equipment – some bad enough to set fires. Scientists predict that if a similar storm were to hit Earth today, power surges caused by solar particles could blow out giant transformers, potentially leaving cities without power for weeks, months, or even a year.

According to the Commission, EMP attacks and solar storms pose a potentially serious problem for our current electrical power grid; however, it is one that can be reduced below the level of a catastrophic consequence through focused effort coordinated between industry and government. To best prepare for a possible long-term outage, the Commission recommends identifying effective and necessary modifications and additions to the current electrical system, and to conduct in-depth research development on system vulnerabilities. The author points out that California currently has no recommendation in place for how electrical utilities can prepare for such an event, and there is no current evaluation of how prepared utilities are to handle these events.

CalOES: The California Disaster Act was enacted by the State Legislature in 1945. The Act combined responsibility for planning and preparing for emergencies, whether natural, technological and human-caused into a single state agency. The California Emergency Services Act (CESA) was enacted in 1970 to supersede the California Disaster Act. CESA established the

Governor's Office Emergency Services with a Director reporting to the Governor. The office was given responsibility to coordinate statewide emergency preparedness, post emergency recovery and mitigation efforts, and the development, review, approval, and integration of emergency plans.

In 2009, the California Legislature merged the powers, purposes, and responsibilities of the former Cal OES with those of the Office of Homeland Security (OHS) into the newly- created California Emergency Management Agency (CalEMA). On July 1, 2013, Governor Edmund G. Brown Jr.'s Reorganization Plan #2 eliminated CalEMA and restored it to the Governor's Office, renaming it the California Governor's Office of Emergency Services (Cal OES), and merging it with the Office of Public Safety Communications. Today, Cal OES is responsible for overseeing and coordinating emergency preparedness, response, recovery and homeland security activities within the state.

This bill would require CalOES to add to the SEP preparedness recommendations to feasibly harden the critical infrastructure of electrical utilities against an EMP attack, geomagnetic storm event, or other potential cause of a long-term outage.

State Emergency Plan: On June 23, 2009, Governor Arnold Schwarzenegger promulgated the 2009 edition of the State of California Emergency Plan. The plan, in accordance with the CESA, addresses the state's response to extraordinary emergency situations associated with natural disasters or human-caused emergencies. SEP is a management document intended to be read and understood before an emergency occurs. In accordance with CESA, the plan describes the methods for carrying out emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, how resources are mobilized, how the public will be informed and the process to ensure continuity of government during an emergency or disaster.

The SEP is designed to outline the activities of all California jurisdictions within a statewide emergency management system and it embraces the capabilities and resources in the broader emergency management community that includes individuals, businesses, non-governmental organizations, tribal governments, other states, federal government and international assistance.

Author Amendments: The will offer and accept the following amendments to the findings and declarations in the bill:

Section 1. The Legislature finds and declares all of the following:

~~**(h) Yet over the past 10 years, gridlock and partisanship in Washington have stalled national action on this issue. And while Washington repeatedly fails to protect the American people from these threats, the inevitable draws ever closer.**~~

(h) Yet gridlock and partisanship in Washington have prevented comprehensive national action on this issue. Over the past 10 years Congress has failed to pass both the SHIELD and GRID acts The Federal Energy Regulatory (FERC) has issued reliability standards that ameliorate the problem, but do not solve it. Where Washington fails to protect the American people, it falls to the States to act.

Prior/Related Legislation: AB 289 (Gray), Chapter 106, Statutes of 2017. Required CalOES to update the SEP on or before January 1, 2019, and every five years thereafter.

AB 1346 (Gray) of 2015-2016 Legislative Session. Would have required CalOES update the State Emergency Plan on or before January 1, 2018, and every 5 years thereafter, and would require the plan to be consistent with specified state climate adaptation strategies. (Died on Senate inactive file)

REGISTERED SUPPORT / OPPOSITION:

Support

None on file

Opposition

None on file

Analysis Prepared by: Kenton Stanhope / G.O. / (916) 319-2531