

Space Weather Threat

If there was a lottery that would make you a multimillionaire and you had a one in twelve chance of winning would you play? If you received a box and was told it had a one in twelve chance of blowing up if opened and end your life, would you open it?

Experts say there is a one in twelve chance per decade of a severe space weather event that would take down the power grid for months or maybe even years. If you only have a one in ten chance of surviving it, would you demand action to prevent it? Unfortunately this is a real risk from space weather!

Occasionally the sun has a Coronal Mass Ejection (CME) that throws trillions of tons of plasma containing charged particles into space. If the CME is thrown at the earth it produces a space weather event. While we have been hit many times by less severe space weather events, we have been extremely lucky that we have not had a severe space weather event since we have become totally dependent on electricity and computers to sustain our lives. One such event did occur in 1859 and another in 1921. In both cases they damaged the electric systems which existed at that time. There have been three such CME's in the last twenty years that would have taken down the power grid long term, but just missed Earth by seven days or less each.

Fortunately there are proven engineering solutions that can protect from this threat. Military and senior government officials have protected their facilities. An effort is underway to identify what needs to be protected in the Colorado energy grid to address this risk. Please support House Bill 25-1260 concerning the resiliency of the systems that provide electricity in relation to geomagnetic storms.

TESTIMONY – HB 25-1260 Electrical Generation & Distribution Resiliency

by **John Spence, Director of the Colorado Task Force on National and Homeland Security**

I am in favor of **HB25-1260** to protect the Colorado electric grid from Geomagnetic Storms (GMD). A severe GMD (solar storm) would likely result in a long term power outage that would have catastrophic consequences on our population from lack of food, clean water, sewage treatment, medicine, transportation, etc.

This type of severe weather event happened before with the **Carrington Event (Sept. 1, 1859)**. Telegraph capabilities were destroyed. However, **this size solar storm would have destroyed much of our electric grid if it were to happen today.** According to the Space Weather Prediction Center at the the National Oceanic and Atmospheric Administration in Boulder, we are at a solar maximum where the risk of severe solar activity is very high. Scientists predict that major storm disturbances occur with a frequency of one every 150 years so **another solar superstorm is overdue!**

NOAA FORECASTS QUICKER, STRONGER PEAK OF SOLAR ACTIVITY

