



Emergency Management Tabletop Exercise 18001

CME GRID DOWN EXERCISE

A TIER 1 EMERGENCY EVENT



CIVIL DEFENSE VIRGINIA

Emergency Management Tabletop Exercise

This is a table-top exercise to evaluate the city/county emergency management (EM) capability in an All-Hazards test of its ability to mitigate, prepare for, respond to and recover from a natural space weather phenomenon known as a Coronal Mass Ejection (CME) (Solar Storm, Solar Flare). Note: this scenario will also resemble a major long-term blackout situation from an electromagnetic pulse (EMP) attack on the national power grid, except with less damage to non-connected electronics. Since there has been and continues to be threats of cyber and physical attack upon the power generation capabilities, transformers and transmission lines of the national electric grid, which could also result in a long-term disruption of our power supply, this scenario could apply to this threat as well. Any hazard that could cause the long-term suspension of electrical power to large portions of the country, or the entire nation, causing a complete blackout of all electrical services must be exercised to its fullest possible outcome.

Exercise Conditions:

This is a major national electrical blackout.

The city/county can only respond to this catastrophic event with the organic resources it currently has on hand. No mutual aid will be allowed, nor will any be coming from neighboring cities, counties, the state or federal governments. No outside non-profit organizations will come to your aid either. Every jurisdiction in North America is suffering from the same loss of electricity and most likely just as unprepared for such a crisis as this.

Exercise Scenario:

A massive solar flare (coronal mass ejection) (CME) has taken down a majority of the electric grid in the United States. Many of the extra-high-voltage (EHV) transformers have been damaged and it may be months – or longer – before power is restored. These EHV transformers are all special-order items, are only made outside of the United States and take as little as 12 months to manufacture, plus transportation and installation time. All you have is whatever resources the city/county currently has on hand (disasters are “come as you are” events). The

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Exercise scenario adapted from The Civil Defense Book: Emergency Preparedness for a Rural or Suburban Community,

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date, time and weather are exactly what they are currently in real-time. Since this is a national-scale disaster you cannot count on any aid from outside your jurisdiction for the foreseeable future – perhaps months. Your jurisdiction should plan on going it alone for the duration of the emergency, or until assistance is provided by state or federal authorities, or the electrical power is restored.

Exercise Objectives:

1. Determine what resources and capabilities you have
2. Determine the obvious problems your jurisdiction will face
3. Think about things that could be done prior to an event and prepare and mitigate

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Things to consider for the three exercise objectives above

Objective 1. Determine what resources and capabilities you have

Self-explanatory.

Objective 2. Determine the obvious problems your jurisdiction will face

Long-term interruption of power

- People will be without heat/AC
- People will be without refrigeration – this includes grocery stores, hospitals and pharmacies
- People will be without the ability to perform basic functions like cooking and boiling water or providing heat to their homes during cold temperatures causing increased fire dangers
- People will be without basic sanitation and, hence, at risk for diseases
- People may be without transportation - without fuel due to no electrical power for the pumps and no resupply
- Most, if not all, forms of communication will be disrupted

Long-term interruption of supply chain

- Food delivery will stop
- Fuel delivery will stop
- Banks will be closed, no cash withdrawals or ATM service
- Delivery of medicine and medical supplies to hospitals, clinics and pharmacies will stop
- Delivery of all products, parts and supplies will stop

Long-term interruption of essential service

- Water service will stop
- Sewer service will stop

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- Fire, EMS, Police/Sheriff will not be able to respond (for lack of fuel, personnel and communications)

Collapse of law and order (after first three plus days)

- The Police/Sheriff will not have the manpower, communications, or transportation to provide security for the community
- Desperate people will resort to looting, burglary, robbery, or any means necessary to get food and water
- It is unlikely that state or federal help “is on the way” anytime soon, no way of knowing
- Many local governments will quickly become ineffective
- Without ATMs there will be a lack of cash for purchasing few available food items
- EBT cards will not work and those receiving them will not have a way to obtain food and other life sustaining supplies
- Even after the restoration of power for a prolonged period there will still be areas within your jurisdiction that will need to be reestablished within the normal standards of civility (Once civility fails, it is often hard to bring it back quickly)

Starving and sick refugees arriving from larger urban areas

- Even if, miraculously, you are in a jurisdiction that is prepared and has a plan to attack the above challenges, look to your nearest urban areas – refugees will soon be forced to flee the cities due to lack of food, medical, and safety. Any plan for a community’s survival will have to address how to humanely handle desperate refugees while protecting your community and maintaining law and order
- Farms and rural homesteads will be targets of gangs and opportunists looking for food and valuables to use as barter. Produce and livestock will be slaughtered and wasted by criminals not knowing how to properly process these resources
- Safety of rural residents will be severely imperiled by a lack of civility and no law enforcement coverage
- County borders will have to be monitored and protected
- County assets will have to be guarded from looters/criminals (assets include: government offices and buildings, other critical infrastructure, banks and credit unions, food stores, hospitals, clinics, pharmacies, liquor stores, gas stations, etc.)
- After more than a week without food, locals, as well as refugees, will be looking for food at the farms and ranches in the rural parts of the county

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Objective 3. Think about things that could be done prior to an event and prepare and mitigate

There is a lot that can and should be done to mitigate the affects of a long-term power outage in the community. The answer lays in the citizens of the community partnering with their local government to work together on the answers. To do this, the city/county would have to properly inform the community of the threats, why they should be concerned and what needs to be done to mitigate the threats, especially worse-case scenarios such as this exercise. The city/county can only do so much, but it can't be successful without the willing participation of the citizenry. It can and must be done! The EM process needs a Civil Defense component as this is the only concept that focuses on the citizens helping themselves and their neighbors during emergencies. This is a community-based approach, rather than a top-down, government controlled process. Consider the way the residents responded to help their neighbors in Houston, TX after Hurricane Harvey in 2017, this was Civil Defense in action. See definitions below.

Definitions:

Emergency Management

According to FEMA “emergency management seeks to promote safer, less vulnerable communities with the capacity to cope with hazards and disasters.” The mission is that “Emergency Management protects communities by coordinating and integrating all activities necessary to build, sustain, and improve the capability to mitigate against, prepare for, respond to, and recover from threatened or actual natural disasters, acts of terrorism, or other man-made disasters.”

Civil Defense

Civil Defense is the system of civilians and civilian authorities partnering in protective measures and emergency relief activities conducted by community members for their own safety and protection in case of severe natural or man-made disasters; a. protecting families, neighborhoods and communities, b. training members in disaster preparedness, response and recovery measures, c. maintaining *Continuity of Community* by preserving safety, security and constitutional governmental functions and, restoration and protection of critical infrastructure.

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