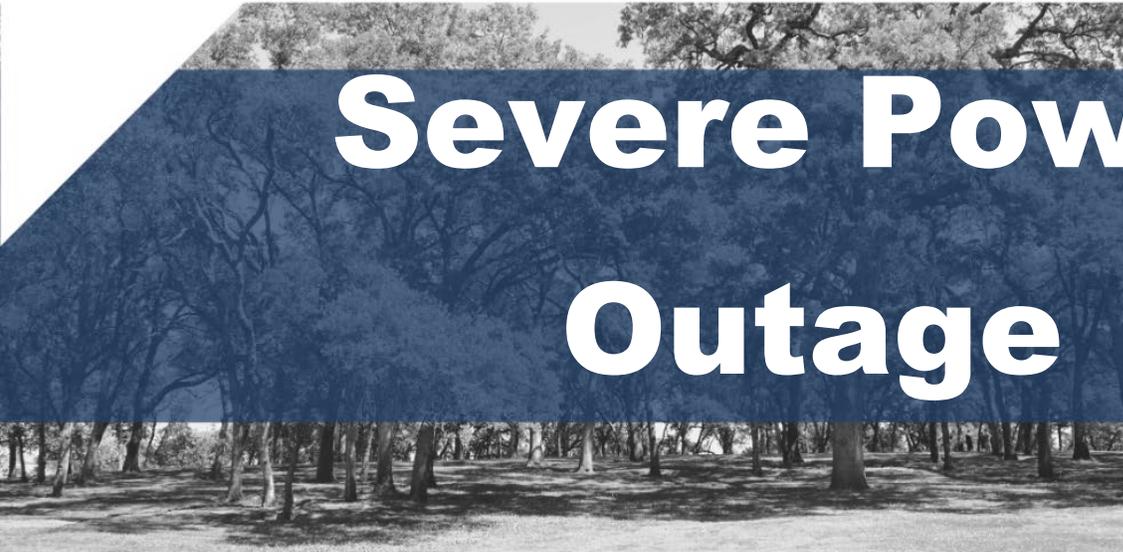


SACRAMENTO  
COUNTY

OFFICE OF EMERGENCY SERVICES



# Severe Power Outage



**December 2020**

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# RECORD OF CHANGES

REVISION NUMBER	PURPOSE FOR REVISION	DATE
1		
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## **1. INTRODUCTION**

The Severe Power Outage Hazard Annex supports the Sacramento County Emergency Operations Plan (EOP). This annex outlines Sacramento County's planned response to a severe power outage (defined as a power outage in all or part of the county of a duration of seven days or longer). It is the intent of this annex to create a framework for preparations and response within existing statutory obligations and limitations. This annex does not apply to normal day-to-day emergencies; rather, it focuses on long-lasting power outages (due to any cause) that can generate unique situations requiring unusual responses.

Since this annex outlines responses to power outages that can be caused by any number of disasters (earthquakes, high winds, cyber-attack, etc.) it is envisioned that this annex will often be implemented alongside an annex dealing with the specific type of disaster that causes the power outage. Therefore, this annex focuses on specific activities and concerns that relate to the lack of electrical power ONLY.

### **1.1 Purpose**

The purpose of this annex is to define the organization, operational concepts, and responsibilities during a severe power outage event in Sacramento County.

This annex is applicable to all locations and to all agencies, departments, and personnel within Sacramento County having responsibilities during a severe power outage event.

Responsibilities identified in this annex are to be addressed on an as-needed basis and are not dependent upon the formal activation of the Sacramento County EOC. When the Severe Power Outage Hazard Annex is activated, the responsibilities of coordinating the activities outlined in this annex will be performed by the Power Outage Task Force.

### **1.2 Scope**

This annex applies to operations carried out specifically to counter impacts of a severe power outage (outage lasting longer than seven days) in any part or all of Sacramento County.

The provisions, policies, and procedures of this annex are applicable to all agencies and individuals, public and private, having responsibilities for providing services that could be impacted by a severe power outage.

This annex is intended to implement cross-jurisdictional processes and procedures to limit the impact that a severe power outage will have on the people and livestock of Sacramento County. The ultimate goal is to ensure an uninterrupted power supply to all critical facilities and to ensure that, if a power interruption occurs, power is restored in a manner that prioritizes efforts based on the criticality of facilities.

### 1.3 Situation

For the purpose of this annex, “severe power outage” refers to a power outage in most or all of Sacramento County of a duration of seven days or longer. The National Infrastructure Advisory Council provides the following description in “Surviving a Catastrophic Power Outage – How to strengthen the Capabilities of a Nation” (p.2):

#### *What is a catastrophic power outage?*

- *An event beyond modern experience that exhausts or exceeds mutual aid capabilities*
- *Likely to be no-notice or limited-notice and could be complicated by a cyber-physical attack*
- *Long duration, lasting several weeks to months due to physical infrastructure damage*
- *Affects a broad geographic area, covering multiple states or regions and affecting tens of millions of people*
- *Causes severe cascading impacts that force critical sectors—drinking water and wastewater systems, communications, transportation, healthcare, and financial services—to operate in a degraded state*

*“Significant action is needed to prepare for a catastrophic power outage that could last for weeks or months.”*

NIAC Report “Surviving a Catastrophic Power Outage” p.4

This plan was created by a severe power outage working group. The team used a collaborative approach to this annex and utilized the experience and expertise of the planning team members as well as good practices from other jurisdictions.

Response to a severe power outage will involve two major concurrent operational efforts: the restoration of power; and lifesaving and life-sustaining efforts.

Restoration of power will remain within the purview of the utility companies while

the County Office of Emergency Services will coordinate lifesaving and life sustaining activities.

A power outage of this magnitude may be caused by a number of different hazards. This annex is not concerned with the threat and will focus on emergency response to a severe power outage. The type of event contemplated could include not only an extended loss of power, but also a cascading loss of other critical services—drinking water and wastewater systems, communications, financial services, transportation, fuel, healthcare, and others—which may slow recovery and impede re-energizing the grid.

Based on the county’s hazard analysis, there are several emergency and disaster scenarios that may require activation of this annex, including earthquakes, severe storms, volcanic eruptions, and wildfires. An intentional event might also precipitate use of this annex.

A severe power outage may possess some or all of the following characteristics:

- The outage covers multiple counties or states and leaves millions of customers without power for an extended period.
- A significant portion of the population in the affected area warrants prolonged mass care and emergency assistance support.
- A loss of critical lifeline functions (e.g., energy – electric, energy – gas/oil, water, communication, and transportation) results in risks to health, personal safety, national security, and economic viability.
- Impacts to other critical infrastructure (CI) sectors result in significant loss of services or functions if the duration of the power outage is for an extended period of time.
- The County may need to conduct sustained operational coordination to respond to the effects from the power outage.

The Severe Power Outage Task Force coordinates response activities with other activated task forces (such as Sheltering, Feeding and Housing), County organizations, and other organizations and jurisdictions throughout the County. The Severe Power Outage Task Force in the EOC is led by Sacramento County Department of General Services and supported by the Sacramento County Sheriff’s Office, the Sacramento Metropolitan Fire Department, County Public Health, and other organizations as directed.

The Standardized Emergency Management System (SEMS) requires the County to act as the Operational Area to provide coordination and communication between its member jurisdictions and the State.

Interdependencies. “Reliance on the electric grid is a key interdependency (and vulnerability) among all CI [critical infrastructure] sectors and supporting infrastructures, making grid reliability and resilience a fundamental need for national safety and security.” (Power Outage Incident Annex to the Response and Recovery Federal Interagency Operational Plans, Managing the Cascading Impacts from a Long-Term Power Outage, Homeland Security, June 2017, pp. 6-7).

Understanding some of the interdependencies of the CI sectors is critical. The chart below outlines the interdependencies between the electrical sector and the other CI sectors.

**Table 1: CI Sector Interdependencies (pp. 6-7)**

Critical Infrastructure Sector	Energy Sector Reliance on CI Sector	CI Sector Reliance on Energy Sector
<b>Chemical</b>	Chemical products to extract coal or perforate gas and oil wells; petrochemicals	Chemical manufacturing
<b>Communications</b>	Voice and data services for management, response, and restoration activities	Facility power for voice and data services and distributed in-line network equipment
<b>Commercial Facilities</b>	Lodging and feeding of restoration workers	Facility service
<b>Critical Manufacturing</b>	Manufacturing and control logistics; transportation; supply chain integrity	Supply chain
<b>Dams (hydroelectric)</b>	Energy source	Station service
<b>Defense Industrial Base</b>	Manufacturing and control logistics; transportation; supply chain integrity	Military bases and defense production facilities
<b>Emergency Services</b>	Facility security and incident management	Facility power; communications; database use
<b>Energy</b>	Electricity generation fuel source; backup generators; service vehicle fuel; station service	Fuel production and transportation (pumping); station service
<b>Financial Services</b>	Financial institutions, funds transfers	Deposits; consumer credit; payment systems products
<b>Food and Agriculture</b>	Retail food and food service	Agricultural production; food manufacturing, processing, distribution, storage, transportation, retail, and food service
<b>Government Facilities.</b>	Government functions	Facility service
<b>Healthcare and Public Health</b>	Facility and community-based patient and staff well being	Facility service; community-based individuals with power dependent

		durable medical equipment or devices.
<b>Information Technology</b>	Automated tools	Facility service .
<b>Nuclear Reactors, Materials, and Waste</b>	Electricity generation fuel sources	Station service, including safety systems
<b>Transportation Systems</b>	Fuel sources; equipment transportation	Communications; control systems; operations
<b>Water and Wastewater</b>		Water treatment; pumping and distribution

## 1.4 Related Hazards and Vulnerabilities

A severe power outage may be either a cause of, or an effect of, other hazards that impact the county.

Hazards that *could cause* a severe power outage include (based on the 2016 Sacramento County Local Hazard Mitigation Plan Update):

- Climate change
- Dam failure
- Earthquake
- Flood
- Severe weather (extreme heat or cold)
- Wildfire

As stated above, a severe power outage could lead to cascading impacts in other areas, including causing other disasters to occur. Hazards that *could be caused by* a severe power outage include:

- Agricultural hazards (inability to feed/water or cool animals as needed)
- Water shortage
- Flood (failure of pumping stations)
- Disease outbreak

## 1.5 Facts

- A full understanding of the implications of the duration of the power outage may not be immediately known.

- Damage to energy generation capabilities will result in a longer restoration timeframe than if there is just damage to certain control, transmission, or distribution capabilities.
- Damage to components of the electric transmission system could delay power restoration efforts and cause longer estimated restoration timelines than a loss of a generation asset, especially if the damaged component is limited in supply or requires time-consuming logistical support and installation.
- Lack of power will create challenges to providing consistent heat or air conditioning and sufficient sanitation/hygiene in shelter or other mass care facilities.
- For planning purposes, people with disabilities comprise about 20 percent of the national population, and people with access and functional needs generally comprise about 30 to 50 percent of the population.
- The population of the county is culturally diverse – with over 50% of the population identifying as Black or African American, Asian, or Hispanic or Latino<sup>1</sup>.
- The availability or shortage of redundant, accessible, and diverse communications platforms and methods will affect response and recovery operations.
- The County, State and Federal Governments each have a limited organic generator capability.

## 1.6 Planning Assumptions

In the absence of facts, planning assumptions represent information presumed to be true. Planners only utilize planning assumptions that are necessary to make in order for the planning process to move forward. Assumptions are a baseline for planning purposes only and should be verified during response operations.

- All or part of Sacramento County will be without power for seven days or longer.

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<sup>1</sup> Downloaded from US Census Bureau QuickFacts Sacramento, California December 5, 2020  
<https://www.census.gov/quickfacts/sacramentocountycalifornia#qf-headnote-a>

- For a three-week power outage, restoration of electricity will occur no faster than: 15% at 7 days, 40% at 14 days, and 100% at 21 days.
- Electricity is available in communities no nearer than 50 miles from the borders of Sacramento County.
- Natural gas will continue to be available.
- The State Operations Center is activated.
- The State Utility Operations Center is activated.
- Local and state disaster declarations have been promulgated by the appropriate authorities.
- County critical facilities lists are accurate.
- County critical facilities have been prioritized for restoration.
- Utility officials rapidly determine and declare that complete power restoration will take seven days or longer.
- Transportation limitations and supply chain disruptions make it difficult to open shelters, prepare food, and distribute food and emergency supplies.
- Extremely hot or cold weather conditions will greatly increase the number of people unable to shelter at home during a prolonged outage.
- Critical health care facilities, such as hospitals, assisted living facilities, and nursing homes may have difficulty maintaining sufficient temporary emergency power and will face stress from a surge in care needs and potential degradation of services.
- Supply chains will be disrupted, affecting availability of resources.
- Opportunity crime (correct term?) will increase due to people carrying large amounts of personal cash, and people not having their alarm systems working.
- Backup power is available to the Sacramento EOC, allowing for resource support, identification, and management activities being executed at the EOC, thereby allowing the various Department Operations Centers (DOCs) and other OA members to concentrate on direction of essential emergency response tasks.
- If an additional incident occurs during a long-term power outage, it will compound the effects of a power outage and the timeline for restoration of power.

Sacramento Operational Area  
Severe Power Outage Annex

- The amount of per-household garbage produced could increase significantly as refrigerated and frozen foods spoil.
- Daily fuel consumption for critical facilities. Below is a list of average fuel needs by facility type for a 24-hour period.

Type of Facility	Critical Infrastructure Sectors	Generator Size	Fuel Requirement in Gallons (Low)	Fuel Requirement in Gallons (High)
Fire Station	Emergency Services Sector	15-25 kW	25	42
Police Stations (local and State)	Emergency Services Sector	15-25 kW	25	42
Schools (shelters) private, public	Government Facilities Sector	200-300 kW	336	504
Hospitals	Healthcare and Public Health Sector	800 kW-2mW	1344	2000
Nursing Homes	Healthcare and Public Health Sector	100-200 kW	168	336
Urgent Care	Healthcare and Public Health Sector	200-300 kW	336	504
Prisons	Government Facilities Sector	400-600 kW	672	1008
Water Treatment Facilities	Water and Wastewater Sector	800kW-2mW	1344	2000
Transportation (public use)	Transportation Systems Sector	100-300 kW	168	504
Wastewater Treatment Facilities	Water and Wastewater Sector	800kW-2mW	1344	2000
Dialysis Centers	Healthcare and Public Health Sector	200-300 kW	336	504
Public Water wells	Water and Wastewater Sector	40-150 kW	67	252
Water/wastewater Pumping Stations	Water and Wastewater Sector	40-150 kW	67	252
<b>EMERGENCY MANAGEMENT</b>	Emergency Services Sector	15-25kW	25	42
Command Post	Emergency Services Sector	15-25kW	25	42
Medical Center	Healthcare and Public Health Sector	200-300	336	504
State Facility	Government Facilities Sector	100-200	168	336
Morgue	Healthcare and Public Health Sector	100-200	168	336
Detention Center	Government Facilities Sector	400-600	672	1008
Communications facilities (telephone cell towers)	Communications Sector	35-75 kW	59	126
Radio Towers	Communications Sector	35-75kW	59	126
Airport	Transportation Systems Sector	200-400kW	336	672
Port facilities	Transportation Systems Sector	600kW 1.2mW	1008	1200
Rescue facilities	Emergency Services Sector	15-25kW	25	42
911 Centers	Emergency Services Sector	15-25kW	25	42
<b>FORMULA</b>				
0.07 gallons x generator kW size x 24 hours				

Power Outage Incident Annex to the Response and Recovery Federal Interagency Operational Plans, Managing the Cascading Impacts from a Long-Term Power Outage, Homeland Security, June 2017 p. 10

## 1.7 Authorities and References

A detailed list of Authorities and References related to the Emergency Operations process are provided in the Sacramento County Emergency Operations Plan, Section 1 – Plan Administration. Authoritative documents specific to severe power outage include:

Emergency Operations Plan, County of Sacramento, December 2012

2016 Sacramento Countywide Local Hazard Mitigation Plan Update, County of Sacramento, October 15, 2016

Power Outage Incident Annex to the Response and Recovery Federal Interagency Operational Plans, Managing the Cascading Impacts from a Long-Term Power Outage, Homeland Security, June 2017

NIAC – The President’s National Infrastructure Advisory Council, “Surviving a Catastrophic Power Outage – How to strengthen the Capabilities of a Nation”, 2018

## **1.8 Legal Requirements**

See County of Sacramento Emergency Operations Plan, 2012, for legal requirements.

## **1.9 Cultural Competency and Environmental Justice**

### **Social Vulnerability**

While every person is vulnerable to risk, individuals from diverse populations, particularly those with access and functional needs, are disproportionately more vulnerable and may be at a higher risk to harm in a power outage event. The ability of the diverse populations to respond to power outages may not be the same as more mainstreamed populations.

Elevated risk factors and inherent social dynamics need to be considered for assessing individual and unique community’s resilience and response capacities and capabilities. Communities with limited or lessened *social capital* (e.g., networks of relationships among people who live and work in a community) are implicitly at greater risk to harm. Communities with robust social networks are better able to coordinate response and recovery, quickly disseminate information and support physical assistance.<sup>2</sup>

For example, life-saving emergency information delivered in a language that is not understandable, or is not culturally and linguistically appropriate, or disseminated through technology and notification systems to which there is limited access among the same population, increases risk. Recent firestorm events have

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<sup>2</sup> Daniel P. Aldrich. Building Resilience: Social Capital in Post-Disaster Recovery. University of Chicago Press. 2012

demonstrated the dire consequences when evacuation information and procedures did not incorporate the unique needs.<sup>3</sup>

Historically, hazard events have more deeply affected vulnerable populations:

“There is a general consensus within the social science community about some of the major factors that influence social vulnerability. These include lack of access to resources (including information, knowledge, and technology); limited access to political power and representation; social capital, including social networks and connections; beliefs and customs; building stock and age; frail and physically limited individuals; and type and density of infrastructure and lifelines.”<sup>4</sup>

“...Among the generally accepted [factors that influence social vulnerability] are age, gender, race, and socioeconomic status. Other characteristics identify special needs populations or those that lack the normal social safety nets necessary in disaster recovery, such as the physically or mentally challenged, non-English-speaking immigrants, the homeless, transients, and seasonal tourists. The quality of human settlements (housing type and construction, infrastructure, and lifelines) and the built environment are also important in understanding social vulnerability, especially as these characteristics influence potential economic losses, injuries, and fatalities from natural hazards.”<sup>5</sup>

### **Response to Diverse Populations**

Individuals in a community’s population base who are considered to be more vulnerable to disaster risk have been a growing concern for years. Within the state of California, planning and response efforts for the state’s high-risk populations (also termed as vulnerable populations) came under intense scrutiny during the 2019 auditing of disaster response to recent wildfire events.<sup>6</sup>

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<sup>3</sup> California State Auditor Report 2019-103. “California Is Not Adequately Prepared to Protect Its Most Vulnerable Residents From Natural Disasters.” December 2019.

<https://www.auditor.ca.gov/pdfs/reports/2019-103.pdf>

<sup>4</sup> Susan L. Cutter, Byran J. Boruff and W. Lynn Shirley. “Social Vulnerability to Environmental Hazards.” *Social Science Quarterly*, Vol. 84, No. 2. June 2003. p 245.

<https://pdfs.semanticscholar.org/bd5d/485866557582ff8b3603335a16fe9b739042.pdf>. Accessed January 6, 2020.

<sup>5</sup> Susan L. Cutter, *ibid.* p 245.

<sup>6</sup> Auditor of the State of California. “California is not adequately prepared to protect its most vulnerable.” Accessed January 11, 2020. <https://www.auditor.ca.gov/reports/2019-103/summary.html>.

Two bills recently passed in California require disaster planning, including response operations, to use culturally appropriate strategies and resources to effectively engage and serve culturally diverse communities and populations deemed to have higher vulnerability to hazards and less capacity for resilience.

- **CA Senate Bill 160:** Passed on October 2019, the bill requires the plans to address how culturally diverse communities within its jurisdiction are served. (“Culturally diverse communities” includes, but is not limited to, the following: race and ethnicity, including indigenous peoples, communities of color, and immigrant and refugee communities; gender, including women; age, including the elderly and youth; sexual and gender minorities; people with disabilities; occupation and income level including low-income individuals and the unhoused; education level; people with no or limited English language proficiency; and geographic location.) Response actions must include culturally appropriate approaches, resources, and outreach in emergency communications, including the integration of interpreters and translators; emergency evacuation; and sheltering. Additionally, response engagement needs to create a forum for community engagement in geographically diverse locations.
- **CA Assembly Bill 477:** Passed September 2019, the bill requires that jurisdictions specifically serve the access and functional needs population through the following actions: emergency communications, including the integration of interpreters, translators, and assistive technology; emergency evacuation, including the identification of transportation resources and resources that are compliant with the federal Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12101 et seq.) for individuals who are dependent on public transportation; and emergency sheltering, including ensuring that designated shelters are compliant with the federal Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12101 et seq.) or can be made compliant through modification and that showers and bathrooms are fully accessible to all occupants.

Within the County of Sacramento, social and environmental justice leadership places environmental justice and cultural competence as a high priority in response. Active community planning efforts continue to elevate concern for

inclusion and equity in disaster response.<sup>7</sup> This topic has been a key focus for both practitioners and academics, including topics pertaining to Access and Functional Needs (AFN), lesbian, gay, bisexual, transgender and queer (LGBTQ), cultural diversity, and gender. Additionally, concern is growing regarding the impacts on disaster resilience levels from an increasingly expanding range of social vulnerability factors such as racial disparities, housing and food insecurity, transportation dependencies, and immigration status. Maintaining a heightened situational awareness on individuals and specific diverse population groups who are considered vulnerable under normal circumstances, and may potentially become more highly vulnerable, is critical throughout the entire duration of an extended power outage.

In Sacramento County's increasingly culturally diverse environment, responders must interact, communicate, build relationships, and work effectively with people from diverse cultural and ethnic backgrounds. According to US census data<sup>8</sup>, 32.4% of the households in Sacramento County speak a language other than English at home. Messaging should be translated into the dominant non-English language demographic groups (Spanish, Chinese [Mandarin and Cantonese], and Tagalog)<sup>9</sup> in the county. Messaging related to implementation of this annex will be provided in methods to ensure reception by as wide a population as possible and understandability of the message translation. This includes the methods, avenues, and tactics for assuring effective, widespread and targeted information distribution.

Approximately 12.8% of the population of Sacramento county has a disability. Serving this population is paramount during an extended power outage. AB-477 requires effective communications, transportation, and sheltering response planning actions are in place ahead of an event. For example, clearly

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<sup>7</sup> Sacramento County Office of Planning & Environmental Review. "Environmental Justice Element." 2019.

<sup>8</sup> US Census Bureau, downloaded from <https://www.census.gov/quickfacts/fact/table/sacramentocountycalifornia/POP815218> May 20, 2020

<sup>9</sup> Taken from <https://datausa.io/profile/geo/sacramento-county-ca#demographics> downloaded May 20, 2020.

understanding those who may need direct support for life saving functions will enable a more timely, effective response. Providing accessible transportation resources to the access and functional needs populations is limited during blue-sky periods. AFN-accessible transportation providers may become even more limited over an extended power outage. Response efforts need to incorporate planning efforts for helping address the personal support needs of individuals with disabilities, such as maintaining connections with their support networks, such as service animals and personal care attendants.

Overall, response activities in an ongoing power outage must be conducted in an inclusive, culturally competent manner to ensure that all affected persons in the County are effectively and efficiently served with fair and equitable treatment. Improving outreach efforts and implementing innovative approaches to reach historically under-served people will enable the responders to transcend barriers that traditionally block access to, and foster misunderstanding of, responder service support. To do so, actions by responders should be monitored and adapted, as necessary, to ensure inclusion and equity in all aspects of the response. This lens on cultural competency should continue throughout the recovery operation in ways that ensure disability, civil, and human rights equity.

## 2. Concept of Operations

### 2.1 General

In most instances, a severe power outage will be the result of another type of emergency or disaster. Therefore, the consequences of a severe power outage will usually be managed in addition to the life-saving, life safety and property protection measures being instituted in response to the primary emergency or disaster. The lack of electricity over large areas and for long periods of time will complicate all response actions and will create cascading effects that could have unforeseen results.

- The Severe Power Outage Task Force (SPOTF) meets during the preparedness phase to gather data, determine the cascading impacts of a severe power outage, and develop and recommend mitigative strategies to lessen those impacts.
- When activated during the response phase, the SPOTF gathers as needed to review power requirements in critical facilities and coordinate information and resources as the power outage causes issues.

Severe Power Outage Task Force (SPOTF) Members. The organizations listed below will provide knowledgeable personnel as members of the SPOTF.

- Sacramento County Department of General Services (SPOTF Lead)
- Sacramento County Office of Emergency Services (OES)
- Sacramento County Department of Agriculture, Weights & Measures
- Sacramento County Department of Airports
- Sacramento County Department of Animal Care and Regulation
- Sacramento Department of Health
- Sacramento Department of Human Assistance
- Sacramento Metropolitan Fire District
- Sacramento County Sheriff's Department
- Sacramento County Department of Technology
- Sacramento County Department of Transportation
- Sacramento County Department of Waste Management and Recycling

- Sacramento County Department of Water Resources
- Sacramento County Building Permits and Inspection Division
- Cosumnes Fire Department
- Pacific Gas and Electric (Preparedness Phase only)
- Sacramento Municipal Utility District (Preparedness Phase only)
- Sacramento Area Sewer District
- Regional San – Sacramento Regional Wastewater Treatment Plant
- Sacramento Regional Voluntary Agencies Active in Disaster (VOAD)

## 2.2 Severe Power Outage Task Force

The Severe Power Outage Task Force (SPOTF) coordinates all aspects of preparation for and response to a severe power outage. For long-term recovery the SPOTF will transfer activities to the appropriate Recovery Support Function. The SPOTF is in the Operations Section under the Infrastructure Branch.

### 2.2.1 Preparedness Phase

- Develop and maintain the Severe Power Outage Annex to the County EOP.
- Establish regular meetings of the SPOTF to review the annex and identify changes in the environment, processes, procedures, or structures that could require an update to the annex.
- Coordinate the flow of information between the members of the SPOTF.
- Receive lists of critical facilities from county organizations and external organizations (such as food banks or other critical lifeline entities) as appropriate.
- Identify parameters for prioritizing critical facilities for the placement of generators and power restoration.
- Develop and maintain a prioritized list of critical facilities including:
  - Facilities housing critical functions *with* backup power generation on site, size of generator, number of hours of fuel available, and daily fuel requirement (see Appendix X for a partial list);
  - Facilities housing critical functions *without* backup power generation on-site, including amount of power needed (in kilowatts) to energize

emergency circuits, date the power survey was conducted, and availability of a quick-connect power coupling.

- Identify pending issues and coordinate with the appropriate organization (governmental, private sector or NGO) or other task forces (such as sheltering or feeding task forces) for resolution.
- Work with Joint Information Center (JIC) representatives to develop messaging specific to severe power outages. Ensure messages are developed in ways that are accessible for the vision-impaired, deaf or hard of hearing, and those with limited English proficiency.
- Determine if local radio stations have the ability to broadcast during power outages. If so, identify their daily fuel requirements.
- Consider including emergency generator installation for critical facilities in the Local Hazard Mitigation Plan.

### *Community Lifelines*

Safety & Security

Food, Water, Shelter

Health & Medical

Energy (Power & Fuel)

Communications

Transportation

Hazardous Materials

#### **2.2.2 Response Phase**

- Activate the SPOTF when a severe power outage is forecasted or is occurring (a severe power outage is defined as a power outage in most or all of the County of a duration of seven days or longer).
- Receive a briefing from the Operations Section Chief, including the cause (if known) of the power outage and expected duration.
- Review possible impacts based on the current situation.
- Identify areas without power and determine and list critical facilities within the power outage area to be prioritized for generator placement and fuel.
- Make recommendations to the Infrastructure Branch on generator placement and power restoration priorities.
- Determine related hazards and vulnerabilities and notify the appropriate organizations / entities.
- Determine possible cascading impacts of the severe power outage on community lifelines.

- Provide daily updates to the EOC staff on emerging issues for 24-, 48-, and 72-hour timeframes.
- Coordinate with relevant EOC entities (such as the Care and Shelter Branch and the Health and Medical Branch) and external organizations, as necessary.
- Provide input to the IAP process in the County EOC.
- Provide status updates to the Plans Section as directed.
- Review and coordinate public messaging with the JIC.
- Coordinate information and critical facility status with the Utility Operations Center (UOC) at Cal OES.
- Coordinate with partners (governmental, private sector and not-for-profit) to identify emerging issues relating to the power outage.

### **2.3 Public Warning**

As most communications systems rely on electricity, a severe power outage will create many challenges for effectively communicating with the public. In the absence of large-scale damage, most cell phone systems should initially be available for use for messaging. For the first few hours of the power outage, cell phones should still be charged and text-based warnings, along with radio announcements should reach a wide audience. However, as the outage continues, the ability to keep cell phones charged and radios operational will decrease. This will increase the need to provide information in a different manner, including by deploying liaisons to key neighborhoods to deliver key messaging.

If local radio stations are not able to broadcast due to the power outage, residents should be directed to tune to one of the FEMA Primary Entry Point (PEP) stations within broadcast radius of Sacramento County. PEP stations have been hardened against certain threats and have backup transmitters, power generation and fuel systems. The three PEP stations covering Sacramento County are:

- KCBS – San Francisco
- KKOH – Reno
- KMJ – Fresno

In the event that local radio stations cannot broadcast information, the JIC should work with the stations listed above to provide the required information for Sacramento County.

For general public warning information refer to the County of Sacramento EOP.

### **3. Roles and Responsibilities**

The roles and responsibilities outlined here are in support of operations specific to a severe power outage. They are in addition to any roles and responsibilities the organizations have under other activated plans and annexes.

#### **3.1 Sacramento County Department of General Services (Lead Agency)**

The Sacramento County General Services Department (DGS) is the lead agency for severe power outage response. DGS will provide the SPOTF Leader and coordinate overall severe power outage preparedness and response activities.

##### ***3.1.1 Preparedness Phase***

- Appoint an individual to lead the Severe Power Outage Task Force (SPOTF). The ideal candidate would be knowledgeable in the locations of, and functions in, county facilities.
- Regularly convene the SPOTF to review the severe power outage annex.
- Survey all organizations within the department to determine critical functions.
- Identify critical functions within DGS requiring uninterrupted power and the facilities in which they are housed.
- Prioritize DGS facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Identify fuel requirements for critical facilities and develop a fuel resupply plan.
- Receive from the SPOTF and maintain the prioritized list of critical facilities with power generation requirements.
- Maintain a list of all county-owned generators, including size and fuel requirements.
- Develop and procure stand-by contracts to provide fuel to critical county facilities.

- Develop and procure stand-by contracts to provide generators to critical county facilities.
- Establish the number of licensed electricians to request through EMAC or contract support by:
  - Identifying the number of licensed electricians needed to install and connect temporary power to critical facilities.
  - Identifying licensed electricians working for county departments that have the knowledge and abilities to install and connect temporary power to critical facilities.
  - Determining the difference between the installation need and available county electricians.
- Develop EMAC requests and/or procure stand-by contracts with electricians or electrical companies to install and connect temporary power to critical facilities.

### ***3.1.2 Response Phase***

- Provide the SPOTF Leader.
- Activate the SPOTF upon notification of the Incident Commander, EOC Director, or Operations Section Chief.
- Direct the activities of the SPOTF members.
- Determine the need for SPOTF meetings throughout the disaster period.
- Provide administrative and other support to the SPOTF. Collocate the SPOTF within the DGS DOC (if necessary) while ensuring close coordination with the \_\_\_\_\_ Branch in the EOC.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Identify possible impacts of a long-term power outage on departmental functions and provide to the SPOTF.
- Coordinate with Operations and Logistics section and activate EMAC requests or procurement contracts as needed.

### **3.2 Sacramento County Office of Emergency Services (OES)**

The Sacramento County Office of Emergency Services (OES) is responsible for overall coordination of preparedness, response and recovery activities. OES will assist DGS in coordinating SPOTF activities throughout all emergency management phases.

#### ***3.2.1 Preparedness Phase.***

- Provide a representative to the SPOTF.
- Survey all organizations within OES and determine critical functions.
- Identify critical functions that require uninterrupted power and the facilities in which they are housed.
- Prioritize OES facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for OES critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Work with appropriate human service agencies to create a plan for alternative power sources for access and functional needs populations, particularly individuals with a need for life-support devices.
- Assist DGS with scheduling SPOTF meetings.
- Ensure the severe Power Outage Annex supports the County EOP and aligns with other EOP annexes.
- Determine if mitigative strategies are eligible for development as grant funding opportunities.
- Coordinate mitigative strategies with the Sacramento County Department of Water Resources for inclusion in the Local Hazard Mitigation Plan.

#### ***3.2.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on OES functions and provide updates on any impacts to the SPOTF.

- Coordinate SPOTF messaging with the Joint Information Center.

### **3.3 Sacramento County Department of Agriculture, Weights & Measures**

#### ***3.3.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.
- Work with industry associations to determine the impacts of a severe power outage on livestock operations, including feeding, watering, ventilation, heating/cooling and waste removal.
- Develop mitigation strategies as needed.

#### ***3.3.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- Coordinate with California Department of Food and Agriculture and industry associations to determine actual impacts of a severe power outage.

## **3.4 Sacramento County Department of Airports**

### ***3.4.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.

### ***3.4.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.

## **3.5 Sacramento County Department of Animal Care and Regulation**

### ***3.5.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.

- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.

### ***3.5.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.

## **3.6 Sacramento County Department of Health**

### ***3.6.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.
- Coordinate with the Department of Human Services, electric utilities, and community-based organizations to ensure electric-dependent individuals are registered with the utility companies.
- Coordinate access and functional needs planning efforts with health care providers to develop alternative outreach and resourcing strategies, such as

replacing motorized wheelchairs with lightweight manual wheelchairs and providing breathing apparatuses.

### ***3.6.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.

## **3.7 Sacramento County Department of Human Assistance**

### ***3.7.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.
- Work with the regional transit authority and private vendors to identify additional accessible transportation providers for potential need of expanded support to access and functional needs populations.
- Work with other departments and community based organizations to determine the potential impacts of a long term power outage on vulnerable and diverse populations.

### ***3.7.2 Response Phase***

- Provide a representative to the SPOTF.

- ❑ Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- ❑ Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- ❑ Work with the regional transit authority and private vendors to provide supplemental accessible transportation providers and resources to the access and functional needs populations.
- ❑ Work with other departments and community-based organizations, including the Sacramento Regional VOAD, to determine needs within vulnerable populations due to the loss of power.
- ❑ Collaborate with partners, including the Sacramento Regional VOAD, to develop plans to meet identified needs.

## **3.8 Sacramento Metropolitan Fire District**

### ***3.8.1 Preparedness Phase***

- ❑ Provide a representative to the SPOTF.
- ❑ Survey all organizations within the district and determine critical functions.
- ❑ Identify which critical functions require uninterrupted power and the facilities that house them.
- ❑ Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- ❑ Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- ❑ Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- ❑ Develop procedures to supplement the 911 system if telephone / mobile phone communications become interrupted and people are unable to report emergencies.

### ***3.8.2 Response Phase***

- ❑ Provide a representative to the SPOTF.
- ❑ Update the department's critical facilities list as needed to ensure accurate power requirements are known.

- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- Activate 911 system backup procedures as needed.

### **3.9 Sacramento County Sheriff's Department**

#### ***3.9.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Develop procedures to supplement the 911 system if telephone / mobile phone communications become interrupted and people are unable to report emergencies.
- Determine possible impacts of a severe power outage on various categories of crimes and identify mitigation strategies.

#### ***3.9.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- Activate 911 system backup procedures as needed.

### **3.10 Sacramento County Department of Technology**

#### ***3.10.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.
- Advise county organizations on measures to take to support IT systems during a severe power outage.

#### ***3.10.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.

### **3.11 Sacramento County Department of Transportation**

#### ***3.11.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.

- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.
- Prioritize mass transit routes based on criticality in the event fuel shortages or recharging limitations force curtailment of mass transportation.

### ***3.11.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- Implement reduced mass transit routes based on available fuel or recharging capacity.
- Provide revised mass transit schedule information to the Joint Information Center.

## **3.12 Sacramento County Department of Waste Management and Recycling**

### ***3.12.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.

- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on departmental functions.
- Prioritize garbage collection routes based on criticality in the event fuel shortages force curtailment of garbage collection. Develop alternate garbage collection plan if necessary.
- Coordinate possible impacts of reduced garbage collection with other agencies, including the Department of Health Services.

### ***3.12.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- Review and implement, if necessary, alternate garbage collection plans.
- Provide revised garbage collection schedule to the Joint Information Center.

## **3.13 Sacramento County Department of Water Resources**

### ***3.13.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.

- Determine impacts of a severe power outage on departmental functions.
- Coordinate activities with the Regional Water Authority.

### ***3.13.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- Coordinate activities with the Regional Water Authority.

## **3.14 Sacramento County Executive's Office**

### ***3.14.1 Preparedness Phase***

- Understand to possible impacts of a severe power outage on county functions and the cascading impacts that could impact the county.

### ***3.14.2 Response Phase***

- Activate the SPOTF when necessary.

## **3.15 Sacramento County Building Permits and Inspection Division**

### ***3.15.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Determine critical functions within the division.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Determine impacts of a severe power outage on departmental functions.
- As needed, work with other departments on determining permit and inspection needs for emergency power circuits and equipment.

### ***3.15.2 Response Phase***

- Provide a representative to the SPOTF.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.

- Work with DGS and other departments to provide inspectors when temporary power is being applied to facilities.

### **3.16 Cosumnes Fire Department**

#### ***3.16.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all organizations within the department and determine critical functions.
- Identify which critical functions require uninterrupted power and the facilities that house them.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Develop procedures to supplement the 911 system if telephone / mobile phone communications become interrupted and people are unable to report emergencies.

#### ***3.16.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the department's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on departmental functions and provide updates on any impacts to the SPOTF.
- Activate 911 system backup procedures as needed.

### **3.17 Pacific Gas & Electric (PG&E), Sacramento**

#### ***3.17.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Provide subject matter expertise on power operations and cascading impacts of power loss.

### **3.18 Sacramento Municipal Utilities District (SMUD)**

#### ***3.18.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Provide subject matter expertise on power operations and cascading impacts of power loss.
- Coordinate with the County Department of Health a campaign to encourage people with powered medical equipment to register with electrical utilities.

### **3.19 Sacramento Area Sewer District**

#### ***3.19.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Survey all facilities within the district and determine critical functions.
- Prioritize all facilities for generator provision and/or power restoration based on criticality of function.
- Determine amount of power needed (in kilowatts) and generator connection requirements for departmental critical facilities without backup power.
- Provide a list of critical facilities with power restoration prioritization to the General Services Department.
- Determine impacts of a severe power outage on district functions.

#### ***3.19.2 Response Phase***

- Provide a representative to the SPOTF.
- Update the district's critical facilities list as needed to ensure accurate power requirements are known.
- Review possible impacts of a long-term power outage on the district's facilities and provide updates on any impacts to the SPOTF.

### **3.20 Regional San – Sacramento Regional Wastewater Treatment Plant**

#### ***3.20.1 Preparedness Phase***

- Provide a representative to the SPOTF.

- Determine amount of power needed (in kilowatts) and generator connection requirements for the facility.
- Determine impacts of a severe power outage on district functions.

### ***3.20.2 Response Phase***

- Provide a representative to the SPOTF.
- Review possible impacts of a long-term power outage on the district's facilities and provide updates on any impacts to the SPOTF.

## **3.21 Sacramento Regional Voluntary Agencies Active in Disaster (VOAD)**

### ***3.21.1 Preparedness Phase***

- Provide a representative to the SPOTF.
- Work with the Department of Human Assistance and community-based organizations to determine the potential impacts of a long term power outage on vulnerable and diverse populations.

### ***3.21.2 Response Phase***

- Provide a representative to the SPOTF.
- Work with other departments and community-based organizations, including the Sacramento Regional VOAD, to determine needs within vulnerable populations due to the loss of power.
- Collaborate with partners to develop plans to meet identified needs.

## 4. Critical Considerations by Community Lifeline

Critical considerations are unique aspects of a threat or hazard that should be studied and understood by the SPOTF and the response team. Critical considerations are organized by community lifeline to align with response activities.

### 4.1 Safety & Security

- Actual criminal activities and rumored lawlessness will contribute to public safety fears, which may affect response of recovery efforts.
- The loss of power and impacts on communications, financial services, food, and water will attract certain criminal activities (i.e., theft and looting). Law enforcement officers will need to establish and visibly demonstrate a robust law enforcement presence.
- Robust continuity programs and capabilities mitigate impacts to the performance of essential functions, core capabilities, and critical services, as well as expedite the recovery and full resumption of impacted operations.
- Public and private sector organizations impacted by long-term power outages will require the activation of continuity plans to sustain essential functions and provide critical services to the affected population, and to ensure continuity of government at all levels.
- Essential functions performed from primary or alternate locations will rely on backup power support, which may be limited.
- People could improperly use generators, risking fires/death.
- Commercial fire alarm and security systems may not work.
- Residential alarm systems and smoke detectors without battery backup will not work.
- Decision-making and coordination processes among government officials and with the heads of public and private critical infrastructure sectors and other non-governmental organizations are necessary to ensure support to response and recovery efforts. This coordination will require resilient communications capabilities.
- Economic impacts may not be initially apparent, but may appear over a longer period and last for months or years.

- Individuals affected by the incident and by evacuation orders will likely be cut off from income and will need social services support.

## **4.2 Food, Water, Shelter**

- If the outage occurs during the warmer months, strict water rationing may need to be implemented.
- Water and wastewater operations will be hindered and affect the delivery of some key services.
- Animal and agriculture operations (including agriculture, aquaculture, zoos, aquariums, animal research facilities, and animal breeding and sheltering facilities) rely on power for the provision of food and water to animals and to ventilate, maintain inside temperature, and remove waste products from animal housing areas.

## **4.3 Health & Medical**

- Lack of inclusion for people who depend on power to sustain life or to maintain quality of life, health, safety, and independence unnecessarily places people who need assistance in a higher category of risk and increases likely rescue and response requirements.
- Healthcare services typically operate on just-in-time inventory, which may affect patient care.
- Individuals who rely on durable medical equipment and implantable devices requiring either electric power or battery recharging may lose their life-sustaining independence and overwhelm healthcare facilities if the power is out for more than a few days.
- Consider instituting wellness checks for people reliant on powered medical devices and for elderly people living alone.
- Evacuation of Skilled Nursing Facilities could impact availability of ambulances and durable medical equipment throughout the region.
- Care attendants for individuals with access and functional needs may not be trained on strategies and tactics for meeting client needs of personal care, personal care equipment, or have safe back up plans in response to extended power outages.

- After power returns, there may be need for coordinated communications outreach or service support to assist individuals who rely on medical equipment because medical devices often reset to default settings.
- Dialysis centers generally do not have backup generators, but often operate within a network and may shift patients to other local network facilities if they have power, essential medical staff and patient public and accessible transportation services are available and costs are not prohibitive.
- Health systems must plan for crisis standards of care and scarce resource utilization during mass power outages.
- A segment of the population in the United States operates power-dependent durable medical equipment and, as a result, is unable to self-relocate during a mass power outage.

#### **4.4 Energy (Power & Fuel)**

- Power support will be needed for selective delivery of emergency services to high- density areas or populations of people who need assistance evacuating.
- Mutual aid resources among investor-owned, public power, and cooperative utilities may be overextended.
- The County might need to issue emergency contracts to deliver fuel to the county fueling facilities.
- Fuel shortages may impact garbage collection.
- Fuel will need to be prioritized for distribution and use based on requirements, such as the number of available generators, number of CI facilities requiring fuel or generators, and fuel consumption.
- The provision of temporary emergency power to a CI facility is not the sole factor in returning the facility to normal operating status (e.g., lack of supplies, time to restart operations).
- Even with adequate fuel stocks, distribution and delivery shortfalls may still limit the ability to refuel in place.
- The failure rate of backup generators will increase to approximately 15 percent after 24 hours of continuous use.

- Backup generators at some CI facilities may not be tested frequently or maintained consistently, which may result in equipment failures
- Electric Cars won't be able to be charged.
- Diesel fuel stored for more than 12 months begins to form sediments and gums. Diesel fuel used after it has exceeded its shelf life will increase the likelihood of damage to the generator.
- Use of points of distribution (PODs) may not be a feasible approach for providing fuel to critical CI facilities at fixed locations. As a result, a fuel delivery strategy will need to take into account daily fuel transportation requirements.

#### **4.5 Communications**

- The public may have difficulty reaching 9-1-1 emergency services if communications backup battery power systems fail due to an extended loss of electricity.
- Local radio stations may not be able to broadcast, requiring the JIC to identify and work with radio stations outside the outage area but that still provide coverage.
- Most people will not be able to receive information via TV, forcing more reliance on providing information through radio, the internet, and text messaging.
- As the power fails people will be forced off cable internet, overloading cell phone networks.
- Provide information through non-traditional methods such as satellite radio and direct-to-vehicle communications systems.
- Alternative and widespread communications will need to be provided to access and functional needs populations as well as to other diverse populations groups.

#### **4.6 Transportation**

- Few gas stations have backup power for their fuel pumps. As people need to refuel their vehicles, they will leave the area to find fuel, causing congestion and impacting the nearest towns with power.

- Availability of buses could be impacted by lack of fuel at county fueling facilities.

#### **4.7 Hazardous Materials**

- Environmental issues that occur due to a long-term loss of power may include water contamination and spoilage of food sources.
- Power outages may impact ability of refuse pickup, resulting in refuse management issues throughout county.
- Residential swimming pools and fountains may become a health hazard.

## 5. Core Capabilities

Core Capabilities that could be impacted by severe power outage response operations include:

- Planning
- Public information and warning
- Operational coordination
- Critical transportation
- Environmental response/health and safety
- Fatality management services
- Fire management and suppression
- Infrastructure systems
- Logistics and supply chain management
- On-scene security, protection, and law enforcement
- Mass care services
- Operational communications
- Public health, health care and emergency medical services
- Situational assessment
- Community resilience
- Long-term vulnerability reduction
- Risk and disaster resilience assessment
- Threats and hazards identification

## 6. Resource Management and Coordination

The SPOTF will work closely with other organizations to coordinate resource requests during preparedness and response activities.

***Preparedness Phase.*** As the SPOTF identifies potential resource requirements during the preparedness phase (such as purchasing generators, retrofitting buildings for quick connect power couplings, etc.), they will work with the various organizations to include them in their capital budget requests. If the resources cannot be sourced through organizational budgets, they will be reviewed for grant funding through the appropriate entity (the hazard mitigation program, Economic Development Agency grants, Community Development Block Grants, etc.).

***Response Phase.*** The primary task of the SPOTF during response operations is to recommend resource priorities for critical power requirements. Upon forming, the SPOTF will review their priority lists against actual outage areas and circumstances and provide an updated list to the Infrastructure Branch.

As the SPOTF identifies additional needed resources the resource request forms will be passed through the Infrastructure Branch for procurement (request to FEMA, leasing, buying, etc.). The SPOTF will work with the EOC resource coordinator to maintain awareness of the status of their requests.

## **7. Annex Development and Maintenance**

This annex is developed under the authority conveyed to the Sacramento County Office of Emergency Services in accordance with the County's emergency organization and the Sacramento County Emergency Operations Plan. Sacramento County OES and the Department of General Services have the primary responsibilities for ensuring that necessary changes and revisions to this annex are prepared, coordinated, published and distributed.

### **7.1 Annex Update**

This annex will be reviewed annually with a full document update conducted every three years, or as designated in the County Multi-Year Training and Exercise Plan. Changes to the annex will be published and distributed to all involved departments and organizations. Diverse populations will be communicated with and engaged in the process of conducting plan updates to ensure inclusive cultural competency practices. Recommended changes will be received by the Sacramento County Department of General Services and the Office of Emergency Services, reviewed, and distributed for comment on a regular basis.

Elements of this annex may be modified by the Sacramento County Office of Emergency Services any time state or federal mandates, operational requirements, or legal statutes so require. Once distributed, new additions to this plan shall supplant older versions.

### **7.2 Annex Training and Exercises**

The most critical element of any planning process is to ensure that people are familiar with the plan and that the plan has been tested as thoroughly as possible. Organizations involved in severe power outage operations should disseminate the annex and ensure members understand their organizations' roles and responsibilities.

The Sacramento County Office of Emergency Services will assist by identifying training opportunities for organizations involved in severe power outage operations.

Evaluating the effectiveness of plans involves a combination of training events, exercises, and real-world incidents to determine whether the goals, objectives, decisions, actions, and timing outlined in the plan led to a successful response.

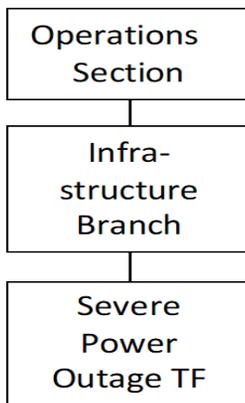
Once the annex is fully implemented, OES and DGS will determine how often this annex will be tested through an exercise. This could be in conjunction with an exercise that focuses on a different hazard which results in severe power outage operations or it could be a stand-alone exercise. Issues and concerns addressing the “whole community” will be integrated into the creation, conduct and evaluation of all trainings and exercises.

During exercises and real-world events, notes should be kept on the facts, assumptions, responsibilities, activities and other key elements of the annex and operational considerations in order to review and update the plan. This is usually done through the after-action review (AAR) process. A best practice is to conduct frequent reviews during operations or exercises (i.e. at the end of each shift) and implement needed changes during the operation. This process is sometimes called a “hot-wash” and is focused on immediate issues and fixes. This is followed up by a final AAR that gathers all of the items identified during the hot-washes plus looking at larger systemic issues. These are translated into an improvement plan to ensure gaps identified during the AAR process are addressed.

## Appendix A: EOC Position Considerations for Severe Power Outage

Operations specific to a severe power outage will be guided by the Severe Power Outage Task Force (SPOTF). The TF Leader will report to the Infrastructure Branch Director in the EOC. The SPOTF will form as directed by the OES Director and meet as needed.

The Department of General Services will provide the SPOTF Leader.



## **Appendix B: Essential Elements of Information (EEI)**

Essential Elements of Information (EEI) provide information for situational awareness and decision-making. EEI must be verified and include specific details. The EEI are listed below by community lifeline but are not all-inclusive.

### **Safety and Security**

- Maps/information on critical infrastructure specific to the incident area.
- Availability of 911 system to the public and responders.
- Status of Sheriff's Department facilities.
- Limitations on Sheriff's Department activities.
- Status of Metro Fire facilities.
- Limitations on Metro Fire activities (including providing emergency medical services).
- Status of flood control facilities, including pumping stations.
- Limitations on critical functions of county departments.
- Limiting factors or obstacles for each sector's restoration of functions (sequencing of activities).
- Status of sector mutual assistance, major restoration efforts underway, and estimated times for restoration.

### **Food, Water, Shelter**

- Names, locations and contact information for grocery stores or other food providers (such as mini markets) with backup power available.
- Number of potential evacuees, and locations of host communities with concentrations of evacuees.
- Location of recharging stations.
- Long-term evacuee/displaced persons' status tracking data (e.g., employment, temporary housing, preferences for permanent relocation versus return, if applicable).
- Location and accessibility of open or planned shelters, fixed and mobile feeding sites, and sites for distribution of emergency supplies (e.g., PODs).
- Private association/nonprofit association requests for assistance.
- Lists of designated staging sites.

### **Health and Medical**

- Location and status of critical healthcare facilities and services (hospitals, nursing homes, dialysis) and information on at-risk populations with access and functional needs and their medical and social service needs.

- Identifying and reporting emerging public health concerns.
- Status of garbage collection.

## **Energy**

- Name of power utilities impacted.
- Updates on restoration progress.
- Prioritization for restoration and resource allocation:
  - List of critical facilities to use in prioritizing restoration.
  - Identification of critical needs to aid in prioritizing restoration efforts (e.g., water, emergency services, hospitals, shelters).
  - Status of generator packs in relation to affected facilities and estimates on arrival times.
- Status of commercial fuel stations.

## **Communications**

- Infrastructure
- Alerts, Warnings, and Messages
- 911 and Dispatch

## **Transportation**

- Critical needs of materials, transportation, and physical access restrictions per sector.
- Status and availability of airport, seaport, and other transportation infrastructure and access route status.

## **Hazardous Materials**

- Contaminated waste management and potential sites for temporary debris/waste storage.
- Facilities

## Appendix C - Community Enclaves

Long-term power outages cause a number of problems for people within the outage area. Among these are finding reliable power sources for home medical equipment, keeping certain medicines cold, finding reliable internet service, and recharging cell phones, computers and other equipment necessary for daily life. One way to help keep people from leaving the area during a power outage is to provide needed support within communities. A best practice in this area is the establishment of community enclaves. This appendix outlines the benefits of establishing community enclaves but is not a directive to begin establishing them. It is meant for illustrative and explanatory purposes only.

In a report titled “Surviving a Catastrophic Power Outage – How to Strengthen the Capabilities of a Nation” – The National Infrastructure Advisory Council (NIAC) recommended designing and developing community enclaves. Community enclaves are areas that co-locate critical services and resources to sustain surrounding populaces, maintain health and safety, and allow residents to shelter in place.

Community enclaves are not mass care shelters or camps. They are already existing facilities with supporting infrastructure that are strategically located to provide essential services. The design and establishment of the enclaves should follow a survey of critical lifeline needs. However, in general they could provide the following:

### ***Safety and Security***

- Law Enforcement/Security
- Government Service
- Community Safety

“Electricity, fuel, clean drinking water, wastewater services, food/refrigeration, emergency services, communications capabilities, and some access to financial services have been identified as critical lifeline services that would be needed to sustain local communities and prevent mass migration.”

NIAC

“Surviving a Catastrophic Power Outage – How to strengthen the Capabilities of a Nation”, 2018, p.12

***Food, Water, Shelter***

- Food
- Water

***Health and Medical***

- Medical Care
- Public Health

***Energy***

- Power Grid
- Fuel

***Communications***

- Infrastructure
- Alerts, Warnings, and Messages
- 911 and Dispatch

***Transportation***

- Mass Transit

The goal of establishing community enclaves is to provide a location within each community where people can easily get to for their needs – from receiving information, to recharging a cell phone, to collocating people with powered home medical equipment. If needed these enclaves could also become where points of distribution are established, and social services provided.

The community enclave would also likely become a gathering point for people to connect – to power generators, to the internet, to the government, and to each other. Anecdotal information from the Public Safety Power Outage experience highlights the popularity of the places providing power for the community – many people arrived to charge cell phones or connect to the internet and stayed to exchange information and, in some instances, play cards. Understanding this very human need to connect and providing a facility and opportunity for this to occur could go far in keeping the community calm.

The types of facilities to consider for designating as community enclaves would have the following characteristics:

- Be easily accessible, from a transportation aspect as well as for the medically fragile and meets all ADA requirements.

- Has plenty of parking for cars and commercial vehicles.
- Supports establishing a shelter for those with powered home medical equipment that requires uninterrupted power.
- Has areas that can become common areas for recharging stations, internet access, providing information, and pet areas.
- Has an area for serving meals.
- Has rooms that can be used by social service, VOAD representatives, and other agencies to provide individual support as needed.
- Can provide receiving, sorting and distribution areas for supplies.
- Provides refrigeration capability for medicines.
- Has emergency power to support all activities. Ideally, the facility would be its own microgrid using renewable energy with emergency generator augmentation available.
- Supports diverse community needs, concerns and resourcing, including language access for those with limited English proficiency.
- Has a robust Wi-Fi network and connection to the internet.

A reliable fuel supply will be critical for establishing community enclaves and requires a baseline understanding of current storage and distribution capabilities.

Consideration should be given to establishing community enclaves as an official practice for the county and including designing and developing the facilities to support the initiative as part of the local hazard mitigation plan.

## Appendix D: Facility Prioritization

Facility prioritization is assisted through the use of the Power Prioritization Tool, provided as a separate document.

The Power Prioritization Tool assists the County in determining priorities through using an objective and repeatable set of criteria to allow comparison between different types of facilities.

The tables below list the various criteria and the points associated with them. The Power Prioritization Tool automatically adds the points for each criteria type selected from a series of drop-down menus. Once totals for the facilities being considered are calculated, disaster managers can use the scores to inform their decisions about how to prioritize the facilities for generator installation or commercial power restoration.

Nature of Facility	Choose the description that best fits the function the facility performs	Points (lower is higher priority)
Life Saving	Hospitals, EMS, public safety communications	1
Life Safety	Police stations, fire stations, Skilled Nursing Facilities, storm water pumps, key railroad crossings, medical baseline, designated cooling centers, dialysis centers	1.5
Wards of the State	Detention facilities, psychiatric facilities,	2
Food/Water	Water production facilities, food distribution, grocery stores	2
Public Health	Wastewater, garbage pickup, hazardous materials containment, animal control	2
Critical Gov Function	Critical government functions	2
Transportation	Mass transit, key traffic lights, Airport, vehicle fueling infrastructure	3
Communications	Cell phone towers, IT infrastructure	3
Defense Related	DOD facilities	3

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Type of Facility	Who Owns or leases the Facility?	Points (lower is higher priority)
Government	Facility is owned or leased by local, state, federal government	1
Non-Profit	Facility is owned or leased by a non-profit organization, including FBOs and CBOs.	2
For-Profit	Facility is owned or leased by a for-profit business (including schools, hospitals and skilled nursing facilities that are part of for-profit networks).	4

Impact	How significant would the loss of the facility be to the community?	Points (lower is higher priority)
High	Potentially creates <b><i>lifesaving</i></b> impacts; potentially creates <b><i>life safety</i></b> impacts within 48 hours (e.g. loss of wastewater treatment plant could cause immediate health issues)	1
Medium	Potentially creates <b><i>life safety</i></b> impacts in more than 48 hours (e.g. disruption of garbage service could cause increase in diseases and rodent population; loss of grocery stores could make it difficult for people to get food)	2
Low	Has little potential to create life safety impacts	3

Impact Area	Population that will potentially be impacted	Points (lower is higher priority)
Large	>2,000	1
Medium	500 to 2,000	2
Small	<500	3

Severity of Impact	How severe is the impact on people in the area?	Points (lower is higher priority)
High	Potential for more than 5 lost lives	1
Medium	Potential for 1-5 lost lives	2
Low	No potential loss of life or injuries	3

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Dependencies	How significant would the impact on other critical functions be if this facility's operations were disrupted?	Points (lower is higher priority)
High	Potentially creates significant immediate impacts on multiple critical systems or facilities, including to any life-saving or life-safety facilities.	1
Medium	Potentially creates immediate impacts to a few critical systems or facilities.	2
Low	Has little potential to impact critical systems or facilities.	3

Redundancies	Can the facility's services be duplicated or consolidated elsewhere, with minimal or no impacts?	Points (lower is higher priority)
No		1
Yes		2

Environmental Justice	Does the loss of the facility impact an Environmental Justice Community?	Points (lower is higher priority)
No		1
Yes		3

Is a Backup Gen Installed?	Is there a backup generator permanently installed?	Points (lower is higher priority)
No		1
Yes		2

Is Backup Gen Operational?	Is the permanently installed backup generator <b>operational</b> ?	Points (lower is higher priority)
No		1
Yes		2

Is B/U Gen on Maintenance Contract?	Is the permanently installed backup generator covered by a maintenance contract with a private vendor?	Points (lower is higher priority)
No		1
Yes		2

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B/U Generator Repair Time	If not operational - How quickly could backup generator be repaired?	Points (lower is higher priority)
>48 hours		1
12-48 hours		2
<12 hours		3

B/U Generator Run Time	If installed - How many hours can backup generator run before refueling is needed??	Points (lower is higher priority)
<12 hours		1
12-48 hours		2
>48 Hours		3

Auto Transfer Switch	If no backup gen is installed, is an Automatic Transfer Switch installed??	Points (lower is higher priority)
No		1
Yes		2

Quick-Connect Coupling	If no backup gen is installed, is a power quick-connect coupling installed??	Points (lower is higher priority)
No		1
Yes		2

Are Power Needs Known?	If no backup gen is installed, is the size of generator needed to run the critical functions of the facility known?	Points (lower is higher priority)
No		1
Yes		2