



2019 POWER SHUTOFFS AFTER ACTION REPORT

Sonoma Operational Area and the County of Sonoma
Department of Emergency Management

March 2020





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EXECUTIVE SUMMARY

On September 22, 2019, PG&E issued notifications that forecasted weather conditions would likely result in the need for power to be shut off in areas across the North Bay including Sonoma County. This would be the first of six such notifications that Sonoma County would receive creating a need for government to respond to over the coming weeks. As a result of the planning and proactive response to the series of power shutoffs, Sonoma County was postured well for an overall effective emergency response to a novel response environment.

These power disruptions, occurring just days apart from one another, generated a tremendous amount of challenges among the community and government alike. Agencies throughout Sonoma County engaged in a proactive response including a collaborative effort with community partners. Each of these organizations went into the power shutoff events with limited knowledge of what they were to face, but applied lessons learned with each succeeding event.

Ultimately, the 2019 series of power shutoffs would require the County and other Operational Area jurisdictions to prepare for and respond to six often-overlapping events:

- September 24
- October 9
- October 23
- October 26
- October 29
- November 20

While the 2019 PG&E power shutoffs presented unique challenges to government leaders and emergency responders, it also presented opportunities to highlight a number of improvements that have been made since the 2017 Central LNU Complex Fire including the Tubbs Fire. Foremost, the County in responding to the power shutoffs, engaged in addressing the challenges and demands placed on them in a forward leaning posture. County leaders did not delay in issuing emergency proclamations and activating the EOC thereby ensuring coordination and communication was as effective as possible under the circumstances. Further, the power shutoffs created significant impacts on the community's ability to function and on government's ability to maintain continuity of operations and service delivery.

Throughout this process, this after action review (AAR) uncovered a number of strengths that need to be recognized to illustrate the progress made since the Central LNU Complex Fire in 2017 and to identify business practices that should be maintained. Among these are:

- Sonoma County has been a vocal leader in advocating for increased decision-making authority for local governments and the ability to access critical information and resources to support affected communities in a de-energization event.
- Improvements in disseminating alerts and warnings to the public compared to previous incidents.
- County investments in the emergency management program were proved effective and proved to add value to the response.



- There was a greater focus of attention to ensuring residents were informed of conditions and resources.
- Sonoma County has made preparing the whole community a priority within its approach to emergency management and response.
- The frequent nature of the power shutoffs and the resulting response actions created scenarios in which the emergency response capabilities of the County could be practiced, tested, and evaluated.
- The Emergency Operations Center performed as a collaborative coordination center.

As with any incident, the PG&E power shutoffs presented a number of items that still deserve refinement and ongoing attention. These areas of improvement are focused on the systems, plans, and processes that drive emergency response activities instead of evaluating individual performance. Among the recommended improvements identified:

- A need for an improved communication and coordination between the County and PG&E.
- Refinements are needed in the planning and implementation of PG&E Community Resource Centers to include the coordination of activities and services with local agencies.
- The on-going power shutoffs have illustrated the need to continue a focus on continuity of operations and business continuity efforts for County operations.
- Additional focus and efforts are needed to adequately plan for impacts to - and prepare - at-risk populations during power outages.
- Continued investment in planning, inter-agency coordination, and support capabilities needs to be focused on the emergency public information role and the joint information system.
- Improvements in identifying solutions to addressing County staff burnout and ability to maintain continuity of their functions using alternative methods of operation.
- The Emergency Operations Center (EOC) facility is notably limited in its capabilities and capacity for sustained and/or large-scale incident response.

This AAR process and report are specifically aimed at examining the actions and events that occurred relative to the Sonoma Operational Area (OA). This includes the countywide coordination of response activities that extended to jurisdictions within the County and agencies arriving as a result of mutual aid. Additionally, this report serves to examine the events surrounding the series of power shutoffs occurring in the Fall of 2019 with an understanding that there is an overlap with the response to the Kincadee Fire beginning on October 23, 2019. The simultaneous nature of these events required the Sonoma Operational Area to manage two concurrent and complex incidents.

This independent AAR was requested by the Sonoma County Department of Emergency Management to review the events and actions taken in response to the 2019 PG&E initiated power shutoff events. The assessment process engaged a variety of stakeholders within the OA. Their contributions and participation are truly appreciated. The candid and transparent participation by Sonoma County officials allowed this review process to successfully evaluate the response. As a result, this report has identified 24 findings and 62 recommendations.



INTRODUCTION

In May 2019, the California Public Utilities Commission (CPUC) gave the State's investor-owned utilities (IOUs), including local gas and electricity provider Pacific Gas & Electric (PG&E), full discretion for calling a preemptive de-energization to protect public safety under California law. PG&E provides electrical and natural gas service throughout northern and central California including Sonoma County. Targeted de-energizations have been a standard practice for



Sonoma County EOC Activated in October 2019

many years, mostly in rural areas, but now climate-driven changes in weather patterns and vegetation have made them a fixture of California's "new normal". As California's population has continued to grow in suburban and exurban areas that were formerly wilderness, the risk and size of fires has escalated. In Sonoma County, the wildfire risk is high. Power shutoffs, which PG&E calls "public safety power shutoffs" (PSPS), may occur under several conditions or a combination thereof:

- A Red Flag Warning declared by the National Weather Service
- Low humidity levels, generally 20 percent and below
- Forecasted sustained winds generally above 25 mph and wind gusts in excess of 45 mph, depending on location and site-specific conditions such as temperature, terrain, and local climate
- Condition of dry fuel on the ground and live vegetation (moisture content)
- On-the-ground, real-time observations from PG&E's Wildfire Safety Operations Center and field crews



Following the relatively short-term and low-impact de-energization that occurred in September 2019, the County analyzed its capabilities and developed response improvement items that were quickly undertaken, including expanding its continuity capabilities with a Continuity of Operations Plan (COOP) effort and the refinement of a COOP management group. The frequency and duration of the power shutoffs clearly demonstrated the necessity of addressing the processes of ensuring the business of the County continues despite the

lack of power. It was experienced first-hand the necessity to relocate essential County functions to alternative sites due to a loss of power at key County facilities. The County also recognized that



communication with PG&E was a gap – inconsistent and inaccurate at times – and attempted to engage the utility in coordination and pre-planning for future de-energization events. These gaps in communication and coordination resulted in limited situational awareness and compromised abilities to make informed decisions for the protection of the community.

The forward leaning posture that the County has embraced to respond more proactively, minimized response times and increased cooperation among the OA jurisdictions despite information gaps regarding planned power shutoff details. The County’s recent investments in the emergency management program has resulted in more robust planning, additional training and exercising of County staff, and greater stakeholder coordination capability. While each of the local jurisdictions shared in challenges regarding situational information, these same agencies adapted to difficult circumstances resulting in stronger platforms for future responses in the spirit of the proverb, “necessity of the mother of invention.”

While Sonoma County has made tremendous strides in program and system improvements, there are still areas that deserve attention to continue that trajectory to better serve and support the community in response to future incidents. Most of these considerations involve some level of coordination challenges among the agencies represented. It is likely the development and socializing of standard processes will help mitigate these issues in the future. However, it will require the active participation among each of the organizations involved in responding to events that result in power shutoffs to ensure that effective communication and coordination can occur.

This report documents the many successes the County had in its response to the PG&E Power Shutoffs and provides recommendations to address the challenges and areas for improvement identified in the aftermath, all with the goal of continuing to improve and continue to build upon the capabilities of Sonoma County’s emergency organization.



Areas of improvement can assist in identifying system adjustments, topics for enhanced training, inter-agency coordination efforts, and planning initiatives that will help fill identified gaps. None of this, though, takes away from the exceptional work performed by any of the agencies involved in this incident. This series of events represents an emergency response to “planned” events for which local agencies have little-to-no control. The environment surrounding these events is new to local jurisdictions requiring agencies to adapt to this “new normal.”

The interviews conducted with County executives, including appointed administrators and elected officials, reinforced the understanding and the agreement that great improvements have been made and this response was one of which to be proud. This was reinforced while reviewing results of community surveys that were provided to residents regarding their experience throughout this emergency. A general trend emerged showing that the majority of respondents felt the response was managed well and that they were appreciative of the communication efforts made by the County to keep them informed.



Scope

This After Action Report (AAR) summarizes the County and the Operational Area’s response to the 2019 PG&E Power Shutoffs from the perspective of staff and stakeholders, discusses preparedness measures the County had been undertaking before the de-energizations to improve its capabilities in all phases of emergency management (mitigation, protection, preparedness, response, and recovery). This report also evaluates the County’s overall response to the de-energizations, especially in areas of supporting the whole community, noting strengths and areas for improvement.

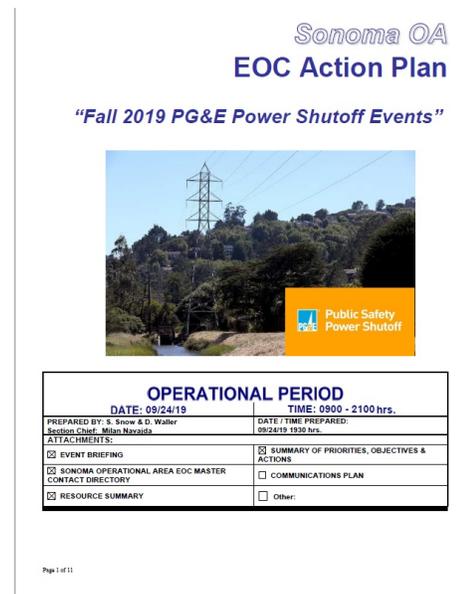
This report covers the scope of the impacts that the PG&E Power Shutoffs had on the Sonoma County community. This report also recognizes that the Kincade Fire occurred during one of the consecutive PG&E Power Shutoffs, and that various significant cascading effects on an already burdened government organization and strained community resulted from that concurrence. Therefore, many findings are cross-linked, and applicable to both events. A separate AAR for the Kincade Fire captures the findings for that incident specifically.

This report is applicable to events occurring in the timeline for the incident (included in **Appendix B**). However, it recognizes the significant investments made by the County in the preceding years, and although this report touches on some short-term recovery actions and provides recommendations on improving the County’s recovery process, especially with regards to restoring the community, it does not provide detailed information on long-term recovery.

Methodology

To develop this report, Witt O’Brien’s collected feedback from County departments, public safety responders, stakeholders, and OA partners using a variety of methods, including archival research and group interview discussions with County employees and partners. Witt O’Brien’s also reviewed County policies, plans, and procedures, as well as incident-specific documentation and other response documents developed during the event, provided by the County. Finally, Witt O’Brien’s reviewed the findings from Sonoma County Alert and Warning After Action Report (January 2020), and the results and analysis of four online surveys focused on the Kincade Fire and the PG&E Power Shutoffs deployed to the community, including two Spanish-language surveys.

The report team’s goal was to allow full, open, honest, and frank discussions from all participants in a safe and comfortable environment. The following workshops and conference calls were held to gather information, in addition to surveys developed for those who were unable to participate:



EOC Action Plan cover for responding to Power Shutoffs on September 24, 2019



- AAR Workshop
January 17, 2020
City of Santa Rosa Utilities Field Operations
A list of participants is included in **Appendix C**.

- AAR Workshop – Executive Session
February 18, 2020
Sonoma County Administrative Office
A list of participants is included in **Appendix C**.

- AAR – Public Information Officer/Joint Information Center (Phone Interview)
February 5, 2020
A list of participants is included in **Appendix C**.

- Surveys deployed:
 - Kincade Fire After Action Report Survey, deployed 2/4/2020, 8 responses
 - Combined Kincade Fire & PG&E Power Shutoff After Action Report Survey for PIO Team, deployed 2/6/2020, 4 responsesA list of responders is included in **Appendix C**.

THEME

Sonoma County recognizes the improvements in disaster response capabilities of our communities that can be attributed to thoughtful, necessary investments in people, plans, and tools. Sonoma County wants to maintain that momentum and has the opportunity to continue to build upon those improvements with further investments.



SNAPSHOT OF THE 2019 PG&E POWER SHUTOFFS

The power shutoffs were a part of PG&E's strategy to prevent wildfires being ignited by energized electrical equipment during weather conditions favorable to fire start and spread. The 2019 PG&E power shutoffs began September 24. These events would repeat themselves six times until November.

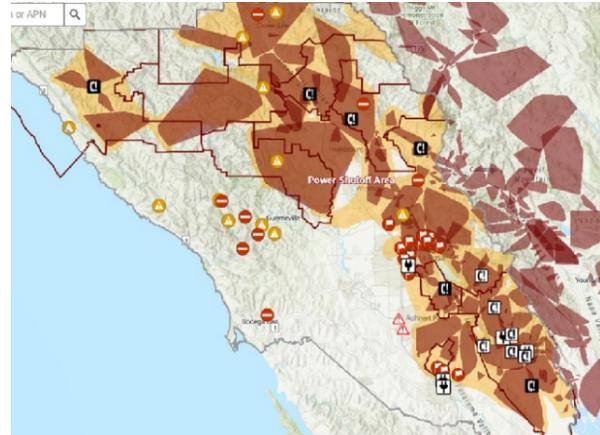
The County of Sonoma proclaimed a Local Emergency on September 23rd - which was later ratified by the Board of Supervisors on September 24th. Simultaneously, the Public Health Officer proclaimed a Health Emergency.

During these events, weather conditions were seen to have wind gusts of up to 80 mph, sustained winds above 25 mph, humidity levels down to less than 20%, and vegetative fuels with extremely low moisture content.

The following larger outages were reported for the 2019 Power Shutoffs:

- October 9, 2019: 66,000 customers¹
- October 24, 2019: 27,650 customers²

Moody's Analytics estimates that the total cost associated with the six PG&E Power Shutoffs is approximately \$105 million in lost economic output³ in Sonoma County. Table 1 below shows an analysis of data gathered from a survey of business that was conducted by the Sonoma County Economic Development Board.



Light shaded areas forecasted to be de-energized and dark shaded areas showing actuals.

¹ EOC Action Plan for Operational Period October 10, 2019, 0700-1900 hours, prepared October 9, 2019 2030 hours.

² Sonoma County Operational Area Situational Summary Report as of 24 October 2019

³ Kamins, A., Ratz, L., and Seitz, C. (January 2020). *The Economic Impact of the PSPS and Kincadee Fire on Sonoma County*. Moody's Analytics.



Table 1: Survey Results From Public Safety Power Shutoff

of businesses

Industry	Reported loss of revenue				
	None	Less than 25%	26% to 50%	51% to 75%	76% to 100%
Accommodation/food services	15	12	10	4	29
Administrative and support and waste management and remediation services	2	1	1	0	3
Agriculture	19	13	4	4	8
Arts, entertainment, recreation, and educational services	17	16	8	3	9
Construction	11	10	3	3	3
Government	8	5	0	0	0
Healthcare and social assistance	5	10	5	2	12
Information, finance, real estate, technical, or professional services	61	43	21	4	28
Manufacturing	7	7	3	2	5
Other	19	3	2	0	4
Other services (except public administration)	0	1	3	0	5
Retail or wholesale trade	17	13	13	7	30
Transportation/warehousing	1	2	2	0	0
Utilities	2	1	0	0	0

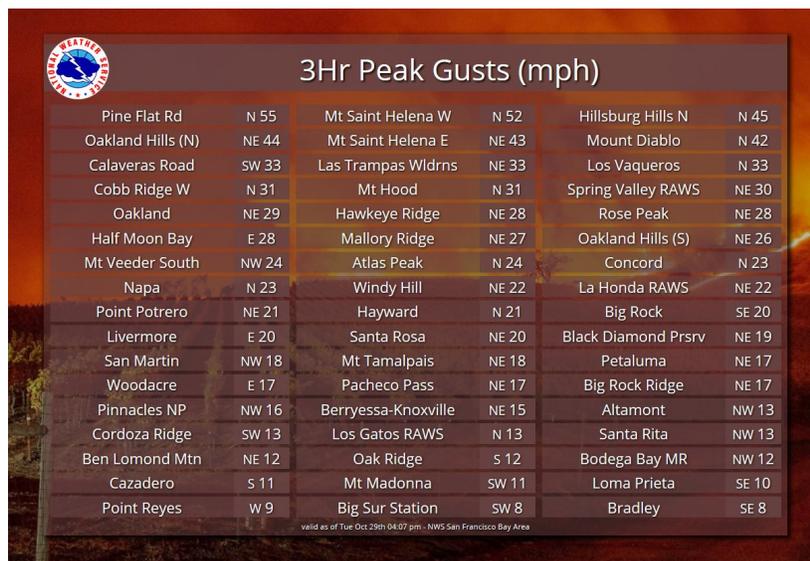
Sources: Sonoma County EDB, Moody's Analytics

Weather

Forecasted weather conditions provide the primary factor in when PG&E determines when and where power shutoffs will occur. Sonoma County experienced periods of elevated temperatures, low humidity, and increased winds creating a greater fire threat throughout September and October. The National Weather Service issued heat advisories and Red Flag Warnings in both September and October. The National Weather Service issues Red Flag Warnings when warmer temperatures combined with low humidity and strong winds produce increased fire danger in the next 24 hours. Many of these periods of heightened fire threat resulted in Pacific Gas & Electric to de-energize electricity service to limit ignition sources from power lines.

October 2019 would generate a record four Red Flag Warnings, more than any other month in history. During

periods between Red Flag Warnings, conditions rarely allowed for improvement of fuel moistures and fire risk. While temperatures returned to more seasonal highs, humidity levels remained extremely low, often



National Weather Service forecasted wind gusts for October 30, 2019.



in single digits. October 22 through 23 saw strong offshore flows from the northeast bringing drier heated air to the area. These dynamic weather conditions extended through the first week of the Kincadee Fire.

Weather Observations at Sonoma County Airport ⁴			
Date	High Temp	Low Humidity	Winds
September 12	95	19%	12 mph
September 13	98	15%	12 mph
September 14	92	21%	12 mph
September 23	93	12%	10 mph
September 24	102	12%	9 mph
September 25	103	18%	10 mph
October 9	83	3%	21 mph
October 10	83	5%	21 mph
October 22	90	12%	15 mph
October 23	91	10%	15 mph
October 24	93	8%	12 mph
October 25	91	12%	12 mph

The weather observations from the Charles Schulz – Sonoma County Airport demonstrate conditions that would promote active fire spread. This weather station lies in the valley adjacent to Santa Rosa. The weather observations in the hills of Sonoma County displayed even greater potential fire weather conditions that posed enhanced risk. Winds in various areas of Sonoma County reached speeds in excess of a Category 1 Hurricane and would help push a fire great distances rapidly. Examples of the extreme weather observed in Sonoma County included:

- Sustained winds of 49 mph and gusts to 75 mph on October 23 at the Healdsburg Hills.
- Sustained winds of 50 mph and gusts to 71 mph on October 23 at Pine Flat Road.
- Sustained winds of 61 mph and gusts to 68 mph on October 23 at Mt. St. Helena.
- Sustained winds of 78 mph and gusts to 103 mph on October 27 at Pine Flat Road.
- Sustained winds of 67 mph and gusts to 85 mph on October 27 at Mt. St. Helena.
- Sustained winds of 38 mph and gusts to 65 mph on October 27 at the Healdsburg Hills.
- Wind gusts of 55 mph at Pine Flat Road on October 30 and a relative humidity of 10%.
- Wind gusts of 52 mph at Mt. St. Helena on October 30 and a relative humidity of 13%.

⁴ Source: National Weather Service, 2020. https://w1.weather.gov/xml/current_obs/display.php?stid=KSTS



KEY FINDINGS AND RECOMMENDATIONS

Each year, we have the opportunity to improve our ability to anticipate, mitigate, and prepare to meet the challenges of Northern California’s “new normal”. This “new normal” is powered and magnified by a number of factors. Climatic circumstances may be driving the increased fire risk and potential for more intense fire behavior. To prevent fire risk, PG&E is using its broad current authority under California law to determine areas to de-energize. These decisions are made with the lens of their own financial risk and liability, and they are based on a number of quickly changing factors, such as shifting wind patterns. These experiences, however burdensome and stressful, challenge Sonoma County in ways no other hazard has. De-energizations are real events that directly impact the broad community and force the County and residents to quickly adapt and develop solutions to minimize hardship and persevere. We have the benefit of lessons learned from de-energization events in Sonoma County and elsewhere to improve response capabilities and rates of success.

This section discusses the key findings for the County’s capabilities in planning for, responding to, and recovering from the 2019 PG&E Power Shutoffs.

Strengths

The following are the most notable strengths demonstrated by the County in response to the PG&E de-energizations. It is recommended that the County continue to foster and promote these strengths among its employees.

- **Vital leadership.** Since PG&E announced plans to institute intentional power shutoffs as part of its wildfire prevention plan⁵, Sonoma County has been a vocal leader in advocating for increased decision-making authority for local governments and the ability to access critical information and resources to support affected communities in a de-energization event. The County is actively participating in CPUC filings as part of the California State Association of Counties (CSAC) and has



submitted comments to CPUC that the implementation of PG&E’s power shutoffs transfers significant risk, responsibility, and cost to local governments - a position bolstered by many neighboring jurisdictions that face similar challenges in de-energization events. The County’s leadership and participation legitimize the County’s position in formal proceedings and constitute a formal record of observations on the subject. Although an

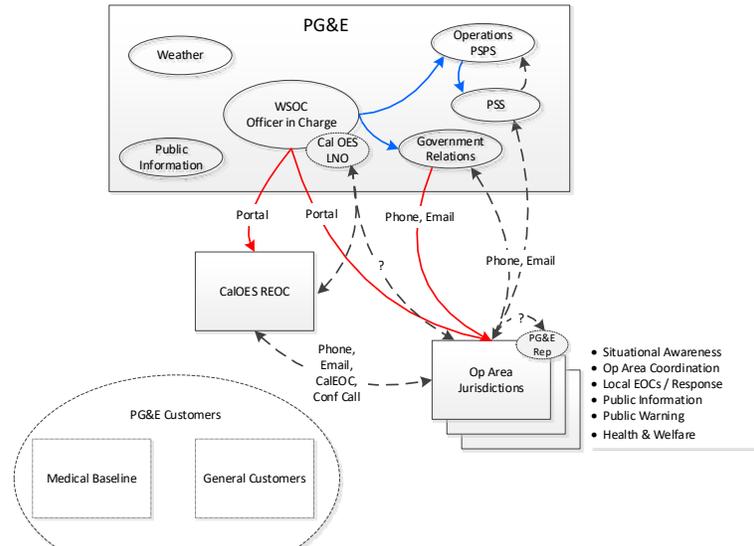
effective mechanism for local government input into power shutoff decisions does not currently exist, continued pressure by public sector partners, may result in additional oversight or amendment of the wildfire prevention plan. This is further reinforced by documentation of

⁵ Pacific Gas and Electric Company Amended 2019 Wildfire Safety Plan (February 6, 2019)



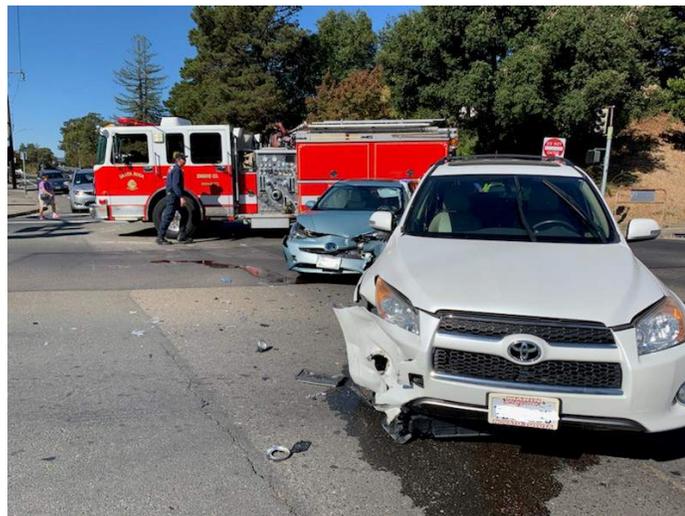
challenges directly linked to a lack of access and resulting lack of local government participation. This AAR serves as such documentation.

In addition, the Sonoma County Department of Emergency Management was on the front lines of evaluating the power shutoff situation, and recognized that a shutoff would result in an emergency requiring a coordinated response that goes beyond solutions offered by PG&E. To address this, the Department of Emergency Management developed a De-energization Annex to its Emergency Operations Plan (EOP). This plan was drafted prior to the series of power shutoff events occurring in the fall of 2019. The De-energization Annex is a best practice attributed to strategic investment by the County and strengthens the whole region by providing an example of planning for and responding to a de-energization. This further reinforces the County's role in leadership on this issue.



Sample De-Energization Response Coordination Diagram

- Finding opportunity.** Several County personnel discussing the 2019 power shutoffs noted that these events served as an exercise of capabilities and an evaluation of processes. These capabilities extend in the response capabilities of other incident types such as catastrophic earthquake response planning which also includes assumptions of blackouts. Understanding that power shutoffs were imminent during the dry weather conditions presented during fall of 2019, the County requested that PG&E



Power outages darkened traffic signals creating traffic hazards.

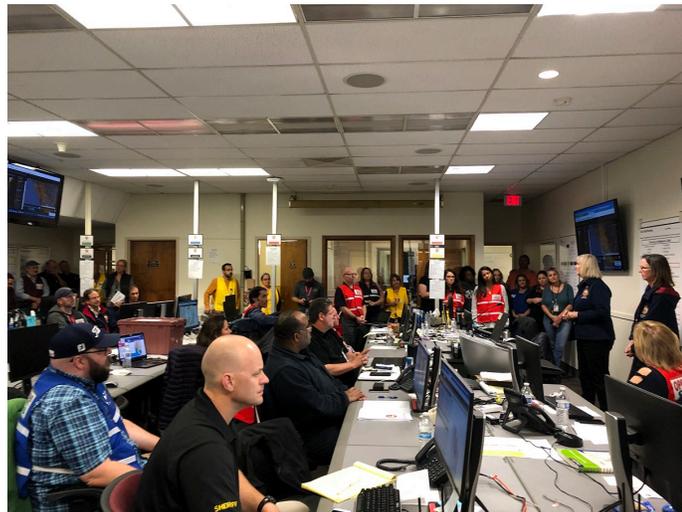
perform a test shutoff so that impacts and limitations could be more accurately understood. PG&E declined, so the County conducted a tabletop exercise (TTX) instead to model anticipated effects and challenges. When the 2019 power shutoffs began, communication from the utility was



especially lacking and the County had to develop new tactics, response actions, and messaging as the incident evolved. PG&E changed its warning categories in late August just as PSPS events were starting. As power shutoffs continued from September to October, the County was able to leverage the consecutive de-energization events as opportunities to refine and train processes and exercise capabilities. Although it challenged staff endurance, the experience set expectations for the level of effort required to respond to de-energizations and other multi-day incidents.

- **Strong partnerships***. Sonoma County assumed a collaborative posture going into the events of October 2019 including the PG&E Power Shutoffs, which extended to the response to the Kincade Fire.⁶ The County recognized the need to improve coordination and information-sharing within the OA, including with incorporated cities, other government entities, and community-serving organizations, all impacted by the de-energizations or serving populations who are. The County worked to identify pathways to enable that to happen. The following are examples of partnerships that were strengthened and enhanced the County's ability to have comprehensive situational awareness and increase the capacity to respond:

- Anticipating the need, the County engaged with cities early on in the year to address ongoing de-energization planning efforts. This planning for de-energization resulted in coordination and relationship improvements overall. Weekly meetings and calls improved the communications capabilities among all partners, and the County Emergency Operations Center (EOC) leveraged the improved coordination to invite cities to participate in the EOC or regular situation status calls.



The Emergency Operations Center activated in support of large-scale power outages.

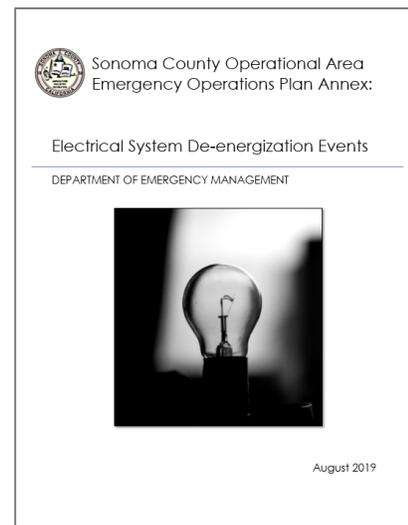
- During the shutoffs, the County held Operational Area calls to gain an understanding of the common operating picture of all local governments and responding agencies. These calls worked well with local agencies and field level personnel. They were an opportunity

⁶ Specific partnerships that worked well in fire response are discussed in the Kincade Fire After Action Report (February 2020).

**Due to the concurrent nature of the October 23, 2019 PG&E Power Shutoff event and the Kincade Fire, many response operations addressed both incidents, thus many strengths are closely related to those identified in the Kincade Fire After-Action Report.*



- to grow relationships, share best practices and tactical approaches that work well, such as addressing traffic signal management, generator usage, signage, etc.
- The County’s wealth of community-serving organizations played a significant role in increasing countywide preparedness and established a pathway to important personal recovery resources. Organizations such as the Sonoma County Resilience Collaborative, whose mission includes empowering lay people with tools for rebuilding a strong community, played a key role in supporting residents before, during, and after the stressful impacts of power shutoffs. The County effectively leveraged the resources of existing organizations through public messaging and coordination, increasing their reach into the community.
 - 211 – a natural network of service providers, easy to remember number, increased opportunity to provide information in a multilingual format, aided in rumor control and correcting inaccurate public information, able to receive non-life-safety calls from 911
 - The Public Information Officer (PIO) team was prepared to provide robust, multi-channel public information (discussed below). However, they understood that due to the anticipated PG&E Power Shutoff, internet connectivity and the ability to use cell phones might be compromised. In order to perform this essential service, the County established a contract with 211 to serve as a redundant method for information-sharing. As residents called the hotline, 211 was able to convey to the PIO team what types of additional information residents were looking for.
 - 211 served the County throughout the emergency events adding augmented services that were both critical and a relief to strained resources. 211 was used extensively demonstrating the value of this partnership. 211 added an access point for multi-lingual assistance, provided an overflow flow for non-emergency calls going to 911, provided an additional resource for situational information, and aided in the control of rumors.
- **Investments that pay off.** Sonoma County has made significant investments in various aspects of the emergency management and response organization and their capabilities since the 2017 Central LNU Complex fire. Below are some notable examples of investments that supported the County’s response to the 2019 PG&E Power Shutoffs:
 - The County promoted the Department of Emergency Management from a division of the fire agency to an independent department and devoted sizable financial resources to growing the organization, including hiring emergency preparedness coordinators, supervisors, and alert and warning staff. During de-energization incidents, the situation evolved quickly and



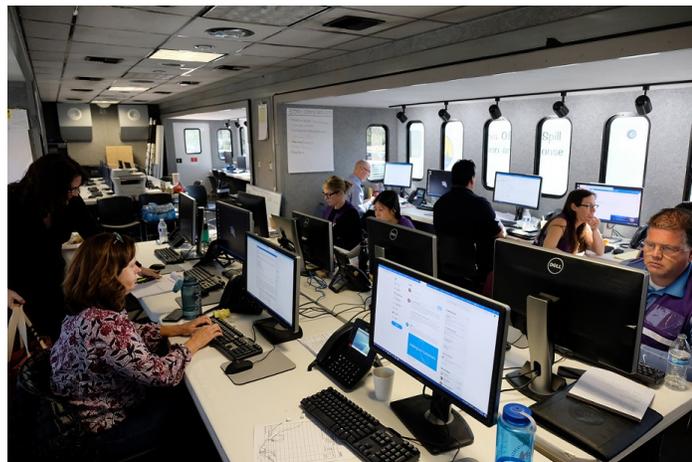


information from PG&E was lacking, oftentimes not reaching the community at all. The County's alert and warning capabilities were critical to supporting the community and these investments were a key component in the County's response to de-energizations.

- The County invested professional development funds to increase the personal preparedness of staff with education, supplies, and equipment. This enabled staff - designated as Disaster Service Workers and required to participate in the continuity of operations of the County - to be better prepared to undertake their duties. Ensuring staff have go-kits, food and water, and plans to communicate and address disaster challenges is essential to staff attendance during crisis. It is critical to ensure staff have the knowledge and supplies necessary to ensure they are as resilient as possible to meet the challenges presented by disaster in order to be able to fulfill their duties. When staff have confidence their families are able to survive the conditions of the emergency and are taken care of, there will be a greater confidence that they are able to return to work.
- The County has embraced the goal of serving the community and is reinforcing their abilities to provide services in a disaster with a Continuity of Operations Plan (COOP). The County's COOP is in progress, with some departments contracting professionals for planning support. COOP planning efforts have enabled the County to continue their essential functions by identifying communication backups, alternative space for functions like cutting checks, including generator-supported spaces, and locating spaces for employees to work on the County's network when displaced from their usual facilities by power shutoffs.

“We can't help the community if we can't keep operating.”

- **Public information.** The County's public information capabilities continue to improve through the constant refinement of relationships, procedures, messaging, and use of tools. The County uses every incident to learn best practices and identify what needs improvement. This is demonstrated through the overwhelmingly positive feedback from the resident surveys deployed by the County in 2019. Many responses identified alerts, emails, Nixle, text messages, TV, radio,



Public Information Officers coordinating messaging and outreach during power shutoffs.



SoCoEmergency.org, County social media, County incident map, press releases, and other methods of communications as the most helpful services during the power shutoffs.

One responder noted, *“Consistent accurate notices from all sources was really great. I felt informed. I may not have needed to evacuate as the fire was very far from my home, but I felt it was handled well.”* Another noted, *“I appreciated all the text alerts that kept me informed, though they kept me awake as well.”*

Some of the specific successes demonstrated by the public information team include:

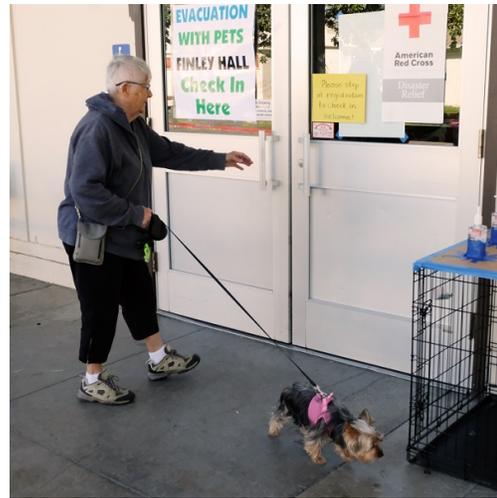
- The County’s PIO team quickly evaluated PG&E’s public information campaign for applicability to the community, County personnel, and other partners within the OA and leveraged appropriate content to create tailored information that both accurately described the situation, drove the narrative, and established the County as the authority for official communications. As a result, residents confidently went to County sources for information before PG&E, whose messaging was lacking.
 - The County’s website performed as intended to disseminate public information. Anticipating an increase in use, the County ensured that website bandwidth was scalable to meet additional need, and as a result, the website was responsive as the volume of traffic increased. They were even able to host PG&E information, such as a real-time map, when the PG&E website went offline.
 - For several months before the anticipated power shutoffs were set to begin, County departments integrated power shutoff information in the delivery of their usual services to the community. For example, social workers brought information about de-energization impacts and preparedness to their clients and were able to evaluate the effect on access and functional needs populations through community meetings.
- **Preparing and reaching the whole community***. Sonoma County has made preparing the whole community a priority within its approach to emergency management.⁷ Because of active outreach including public education messaging and preparedness efforts that took place months before fire season, the community has been empowered to undertake increased personal preparedness planning. Improvements were seen in the engagement of businesses and residents regarding preparedness activities taken on prior to the onset of the PG&E de-energizations. Some examples of pre-event efforts that strengthened public information response capabilities of the PG&E de-energization response include:

⁷ Assembly Bill 477 was signed by the Governor on September 4, 2019 occurring as the power shutoffs were impacting the County. AB 477 requires counties to ensure greater integration of access and functional needs into planning and preparedness efforts including public information and communication in their next emergency plan update.

**Due to the concurrent nature of the October 23, 2019 PG&E Power Shutoff event and the Kincade Fire, many response operations addressed both incidents, thus many strengths are closely related to those identified in the Kincade Fire After-Action Report.*



- The PIO team, ranging in levels of experience and familiarity with EOC work, leveraged the experience gained through frequent activations to establish and practice specific and different roles and responsibilities within the PIO organization. Because of the deeper bench of PIOs, the PIO function was staffed 24 hours a day to answer media questions, prepare key messages, monitor social media channels and update the website with the most current developments.
- Having a significant Spanish-speaking population in the County, the PIO team prepared translation staff resources in advance and were able to bring in two translators per shift. 100% of messages sent by the PIO team were available in English and Spanish
- The PIO team anticipated the level of confusion and misinformation that occurs in a fast-moving and complex incident and understood the value of establishing a single point for all official information to serve as a “one stop shop” for the public. The site, SoCoEmergency.org, was prepared to provide public information for the PG&E Power Shutoffs, and quickly modified to provide public information for the Kincadee Fire, including evacuation and shelter information. The success of having this active site was measured by the increased hit rate and contact on social media posts directing to the site. The PIO team proactively monitored hashtags across different social media channels to monitor rumors and direct users to the SoCoEmergency site for reliable information.
- The PIO team anticipated the need for space in order to scale up their section. The PIO function did not have adequate space at the EOC and needed a dedicated location where their detail-oriented tasks could be performed effectively. The PIOs requested a trailer equipped to support the PIO function. The request was submitted through the EOC Logistics Section who were able to locate one from a Bay Area county. The trailer was transported to the EOC and positioned close to the EOC to maintain the close level of coordination and information-sharing.



Shelter operations included options for pets.

- **Lessons learned, not just documented.** Sonoma County demonstrated the importance of learning from past events by incorporating many recommendations from previously observed areas for improvement, which ultimately led to an improved outcome during the 2019 PG&E power shutoff response. Building upon the increased level of collaboration and coordination discussed above, the following are strengths that can be attributed to the County’s thoughtful approach to ensuring that lessons learned from past events are meaningfully practiced:

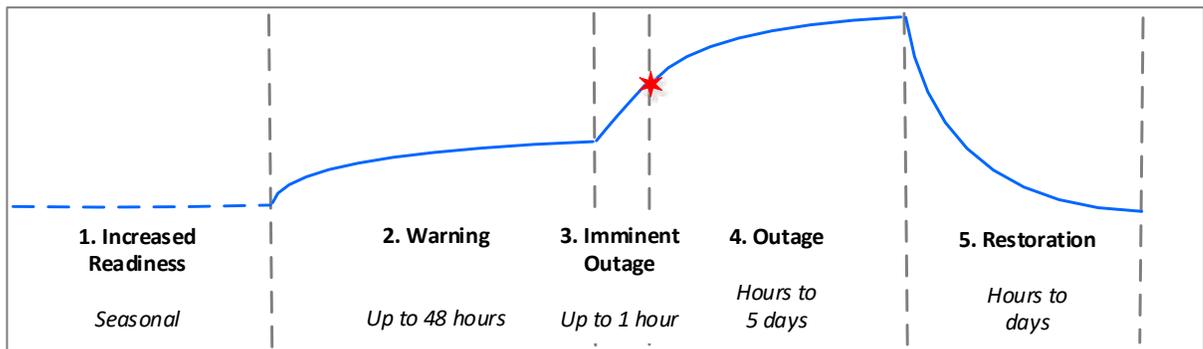


- The County Administrator authorized the activations of the EOC in preparation and early response to announced de-energization events. EOC activations result in unexpected costs. These proactive activations placed the County in a better position to rapidly respond to escalating conditions and address the potential for unknown conditions that may result from cascading impacts due to the power shutoffs.



Traffic lights lost power during outages

- The ability to anticipate the need to scale up operations were key to an effective, proactive response. As part of the Power Shutoff plan, the EOC was proactively opened. The activation provided an additional opportunity to strengthen organizational and communications capabilities, including the ability to share information in a timely manner and practice alert and warning.
- The County had engaged in routine Alert and Warning testing prior to the power shutoffs, demonstrating success enhancing the County's abilities in rapidly disseminating emergency messaging to the community.
- The County rapidly engaged in disaster recovery and continuity of operations functions from the EOC early in the incident. This proactive approach allowed for processes and systems to be utilized that best postured the County to address long-term solutions to the community and the assurance that County services would continue uninterrupted.
- Situational awareness and intelligence improved with better access to modeling, weather satellite applications, field deployed cameras, and OA coordination activities. This resulted in more effective decisions while supporting greater confidence among the community.



Sample de-energization event by phase.



- **Those displaced were sheltered and supported.** While the primary driver for shelters was Kincade Fire evacuations, some of the shelter residents were those affected by the community-wide power outages and who were seeking electrical capability.
- A notable feature that added greater challenges to managing shelter operations during these incidents was that approximately one-half of the County's trained shelter staff were themselves evacuated from their homes.
- Below are steps that the County has taken to bolster its ability to serve the community:



Providing assistance to residents during power shutoffs.

- The Sonoma Human Services Department has been steadily working on enhancing their capabilities, including shelter operations and management. Over 100 personnel have completed training to support this capability, including training to support those with disabilities and others with access and functional needs (AFN), and 27 staff have Functional Assessment Service Team (FAST) training. Having local FAST trained personnel establish shelters in support of displaced AFN residents, allowed time for the County to request additional FASTs from outside of the County. In addition, the County moved the EOC AFN Coordinator position from the Operations Section to Management, which enabled greater access to decision-makers to advise and provide visibility on AFN issues. This alignment showed a noticeable improvement in the level of service provided to the whole community.
- The County has developed a range of sheltering solutions that address the needs of those with pets. The County was successful at sheltering pets in mobile units adjacent to shelter sites, or at shelter sites, if crated.
- The medical support of displaced residents in shelters was largely provided by community partners through the development of Memorandums of Understanding. Community clinics helped fill these roles, freeing up hospital staff to assist with providing health and medical support during shelter operations. Identification and assigning personnel to provide medical support in advance of the Kincade fire minimized the logistics of locating qualified staff.
- Partnerships with jurisdictions throughout the County and the willingness of agencies to step up and fill gaps created by the Kincade fire, proved crucial in ensuring adequate shelter space. Large-scale evacuations created stresses in the shelter system by limiting capacity as areas containing shelters were evacuated. Cities in Sonoma County not immediately affected by the fire took in displaced residents and the shelter management demands this included.



Areas for Improvement

The following are the most notable areas for improvement observed in the response to the PG&E Power Shutoffs. Each area for improvement includes a brief discussion, findings, and associated recommendations for actions or steps the County may take to improve their emergency response capabilities and increase their disaster resilience.

Area for Improvement 1: Coordination with PG&E

An analysis of Sonoma County's response to the 2019 PG&E power shutoffs identified many issues with the effectiveness of communication and coordination between the County and PG&E. This incident had many unique moving pieces in response to events made even more challenging due to organizational bureaucracies and competing priorities. Responsibilities and commitments to constituents varied greatly between that of the County and that of PG&E, resulting in differing perspectives of approach and management strategies. These differences resulted in the challenges and findings listed below.

Observations from the 2019 PG&E power shutoffs provide the County an opportunity to closely scrutinize the issues and gaps captured in the findings below and improve their ability to communicate, coordinate, and collaborate with PG&E as best possible for an improved outcome.

Findings and Recommendations: Coordination with PG&E	
1	<p>Finding 1: PG&E's priorities did not align with the County's priorities in serving the community.</p> <p>Despite increased coordination efforts between the County and PG&E and even though County staff and elected officials visited PG&E Headquarters during the initial shutoffs in San Francisco to promote ways the private utility company can minimize harm to the community in a de-energization, the relationship continues to lack comprehensive commitment from PG&E. The County found PG&E field personnel and those participating in the EOC to be very helpful; however, the County had no opportunity to communicate restoration priorities to the utility. PG&E is continuing to increase its investment in staff and resources so the County remains hopeful that the 2020 season will see real improvements in coordination and capabilities.</p> <p>Recommendation 1.A: Continue to engage with PG&E to form a closer public-private partnership to strengthen the relationship with the County, increase information-sharing capabilities, and establish mutual trust and an understanding of mutual responsibilities, especially establishing a common baseline regarding the emergency responsibilities of both the utility and the County.</p> <p>Recommendation 1.B: Convene a multi-disciplinary planning group of County service providers and representatives of the whole community to determine priorities for re-energization, including governments at all levels and private and nonprofit sectors,</p>



Findings and Recommendations: Coordination with PG&E	
	<p>such as businesses, faith-based and community organizations, organizations that represent the needs of those with disabilities and others with access and functional needs, and the general public.</p>
2	<p>Finding 2: There were challenges to communication, coordination, and collaboration between the County and PG&E that negatively affect the County’s emergency management responsibilities under state law and local ordinance.</p> <p>PG&E protocols are to first coordinate with the CPUC and CalOES and then coordinate with local governments who face the direct and indirect impacts of de-energizations on the public and need information as quickly as possible. As a result, PG&E’s information has to filter through other layers of government, as well as their own internal bureaucracy before reaching local governments that need utility-related information to make emergency management decisions. PG&E has signaled that this approach may change in 2020.</p> <p>Recommendation 2.A: Work with CPUC to clarify authorities, roles, and responsibilities and establish procedures for how PG&E will communicate to the County during an emergency (as well as a reasonable window of time before an emergency) and all impacted local governments in order to ensure that critical information is not held up in higher-level government layers. “Emergency” is to be loosely interpreted and not a “Local Emergency” as defined in California Government Code § 8558(c).</p> <p>Recommendation 2.B: Formally request that PG&E begin to communicate with Sonoma County as soon as they start monitoring an area for weather conditions as part of their increased readiness posture. If there is important information to communicate to CPUC, the County also needs to know as soon as possible.</p>
3	<p>Finding 3: PG&E did not effectively and fully engage the County when planning for de-energization events.</p> <p>PG&E conducted power shutoffs in an unprecedented scope, very broadly scaled and without local government input. The forecasting for shutoffs was also inconsistent and often did not match fully with the actual shutoff areas. As a result, facilities, schools, and businesses who anticipated being de-energized closed unnecessarily, adversely impacting their operating budgets, placing financial burdens on families, and creating a negative public perception that coordination was lacking. Meanwhile, local government up staffed to manage response and diverted staff from essential services, which is not reimbursable and reduces government services unnecessarily.</p> <p>When notified that power shutoffs were a possibility, the County took steps to identify preparedness measures, which included requesting that PG&E conduct a test shutoff</p>



Findings and Recommendations: Coordination with PG&E	
	<p>to help the County better understand the situation plan for actual shutoffs; PG&E did not agree to do this. PG&E also declined County requests to share power shutoff area circuit maps.</p> <p>Recommendation 3.A-1: Invite PG&E to participate in exercises to address gas and electric utility shutoff and restoration scoping and information coordination functions.</p> <p>Recommendation 3.A-2: If PG&E declines to participate in exercises with the County, research the possible value and regulatory considerations of including a gas and electric utility Subject Matter Expert (SME) to provide realistic considerations regarding utilities and ensure the exercise addresses utility-centric issues.</p>
4	<p>Finding 4: PG&E stakeholder coordination calls were disorganized and did not effectively convey critical information.</p> <p>PG&E adhered to regulatory requirements for information management and notification but did not take into consideration additional ways to make it successful. PG&E's coordination calls were chaotic and did not get information out to partners quickly or efficiently. In circumstances where messaging from the County needs to be disseminated in a timely manner, PG&E's calls were found by the County to lack the structure needed to support this. County staff described them to be too long, had too many participants, and covered a wide variety of topics, which diluted the details made available. The calls were described as not being professionally managed or strategically structured. For example, many people from the same agency called in because they did not want to miss critical information, but because the information was presented at the end of the call, they did not stay on the call long enough to benefit from it.</p> <p>Recommendation 4.A: Request that PG&E formally organize de-energization coordination calls to have consistent structure/agenda, consistent terminology, and be professionally managed (establishing call rules) to efficiently get through a dense agenda. Evaluate the use of the Incident Command System (ICS) to organize the calls for information reporting to have predictable timing.</p> <p>Recommendation 4.B: Identify the appropriate personnel from the County to participate in the calls, including redundancies, and establish a report-out process to get information from the calls to the broader group.</p>
5	<p>Finding 5: The concept of PG&E Community Resource Centers (CRCs) continues to be a challenge; the CRCs lack clarity of purpose and coordination.</p>



Findings and Recommendations: Coordination with PG&E

Despite having a much better understanding of Sonoma County’s communities and residents than PG&E does, including knowledge of populations at greater risk for adverse outcomes in a de-energization, the County was not invited to weigh-in on the locations, capabilities, or performance of CRCs. The County observed an underutilization of CRCs⁸ that may be attributed to inconvenient locations with difficult access, inadequate hours, uninviting character, or uncomfortable climate control – the CRCs were equipped to cool, but late October saw near-freezing temperatures amid power shutoffs – among other factors. The CRCs also did not adequately address the needs of those with disabilities or others with access and functional needs including transportation resources

Recommendation 5.A: Conduct a study/survey of the types of resources that may be provided at CRCs that will support the community. Formally communicate this need to PG&E.

Recommendation 5.B: Identify locations for CRCs based on demographic analyses and community needs that can predictably host CRCs for future events, so that the community can anticipate where to find services available from CRCs even when they are not able to receive communications due to de-energization. This should include facilities that can survive the winds that accompany shutoff events.

Finding 6: PG&E identifies de-energizations as “public safety power shutoffs”, creating a false perception of public safety agency involvement.

PG&E’s naming of de-energization events as “Public Safety Power Shutoffs” (PSPS) create a false perception that public safety agencies are leading the effort or making decisions, when in reality they have very little input or involvement, and only have the ability to respond to the events. While it can be inferred that PG&E adopted this name in order to convey their purpose, local governments have communicated that this term is counterproductive in that the shutoffs also jeopardize public safety. Local governments should have a larger role in accurately conveying the narrative of these events. Other local jurisdictions, including the City of San Jose, are advocating for alternative language away from “PSPS” as well to demonstrate the gravity of the situation in their public messaging.

6

Recommendation 6.A: Work with PG&E to refine the language used to identify de-energization events in a more appropriate way, such as “PG&E Power Shutoffs.” If necessary, work with regional partners who face the same difficulty to form a broader

⁸ Finding confirmed by the 4 surveys deployed by the County



Findings and Recommendations: Coordination with PG&E	
	government coalition on this issue to create a broader consensus about terminology and messaging.

Area for Improvement 2: Advocacy on the State Level

The provision of certain critical services such as hospital services and municipal utilities (e.g., power and water) are provided in a combination of public agencies and private businesses. While public agencies enjoy certain immunities for their actions, private entities (for-profit and non-profit) do not. State law, especially as reflected in the Emergency Services Act (Government Code § 8550 et seq.), establishes both the overarching authority for the Governor and the Executive Branch to mitigate the effects of a disaster as well as the framework and resources. It also establishes the authorities for local governments to establish and manage mechanisms that mitigate the disaster effects. State law also provides mechanisms that connect the financial burden of certain events with private entities that are deemed responsible for causing them. The Health and Safety Code is quite robust in connecting the consequences of emergencies related to hazardous materials with responsible parties. However, the PG&E power shutoffs appear to be in an unfamiliar legal area.

Regardless of the conditions prompting the utility to make the power shutoff decision, clearly more research and rulemaking is needed to better leverage existing laws and regulations to ensure that the response costs for local governments are minimized. Where state law and regulation is insufficient here, additional legislation could be considered to offset or reimburse the costs of responding to power shutoff events as well as providing some relief to constituents when the shutoff events are determined to be avoidable.

Findings and Recommendations: Advocacy on the State Level	
7	<p>Finding 7: The impacts of planned power shutoffs on the whole community and economy are so severe that they require additional authorities and resources from the State of California for the County to be able to meet its obligation in supporting the community.</p> <p>Currently, local governments like Sonoma County are legislatively hamstrung in their ability to respond to power shutoffs and adequately support the community because of a lack of State support through a State of Emergency proclamation. The County is able to proclaim a local emergency to enable it to address the anticipated consequences and cascading effects of de-energization incidents with personnel, services, and resources. However, State support is not currently available for power shutoff events through State of California Disaster Assistance Act (CDAA). However, local governments experiencing power shutoffs see the realistic and significant costs and impacts to operating budgets of these types of events.</p>



Findings and Recommendations: Advocacy on the State Level

California Government Code § 8558 defines the conditions or degrees of emergency that exist in California. Included are sudden and severe energy shortages that requires extraordinary measures.

California Government Code § 8680.3 defines a disaster as “a fire, flood, storm, tidal wave, earthquake, terrorism, epidemic, or other similar public calamity that the Governor determines presents a threat to public safety.”

Legislation is currently being proposed in the state Senate to “establish a procedure for customers, local governments, and others affected by a de-energization event to recover costs accrued during the de-energization event from the utility” (SB 378, as amended, Wiener).

Given that the scale of de-energizations experienced by the County in 2019 presented a realistic and documented public safety threat, as exhibited in this AAR, the definition of “public calamity” is demonstrated to be met in sufficient detail to meet the definition of disaster, and State mechanisms for cost recovery should apply.

Recommendation 7.A: The County should continue to show the State, through analyses of power shutoff events and their impacts on government services, the community, and the economy that power shutoffs constitute a “public calamity.”

Recommendation 7.B: As a regional leader in planning for power shutoffs, Sonoma County should continue to advocate for the ability to categorize power shutoffs as incidents that meet the requirements of State of Emergency proclamations to recoup costs and/or pursue legislation that would authorize the CPUC to direct utilities to reimburse local governments for power shutoff events.

Area for Improvement 3: Operational Coordination

An analysis of Sonoma County’s response to de-energizations identified many issues commonly observed among the local government and OA levels of the Standardized Emergency Management System (SEMS), as well as with state entities and with the myriad of key players and service providers within a county. Operational coordination remains an area where capabilities require continuous attention and development. FEMA defines the Operational Coordination core capability as the ability to “establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.”

Observations from the PG&E Power Shutoffs provide the County an opportunity to closely scrutinize the issues and gaps captured in the findings below and improve their abilities to coordinate and collaborate with local government, state, private, and nonprofit sector partners for an improved outcome.



Findings and Recommendations: Operational Coordination

Finding 8: Opportunities exist to improve coordination of agencies within the OA, both before and during an incident.

Local governments and agencies within the OA already take many opportunities to coordinate and jointly prepare for a variety of anticipated emergency conditions throughout the year, including preparation for wildfire season, preparation for storm/flood season and the Great Shakeout for earthquake preparedness. De-energizations are a new hazard that can be expected to occur annually, and often concurrent with other emergencies, as seen in October 2019 with the concurrence of a power shutoff and the Kincade Fire. They may even have a greater impact year to year under dry weather conditions. To address power shutoffs as a separate hazard with the same degree of coordination and cooperation, OA partners have an opportunity to take a similar approach of pre-season meetings to prepare for power shutoffs, communicate priorities, identify needs, and coordinate resources. These pre-season coordination meetings can be an opportunity to provide just-in-time training to personnel new to power shutoffs to increase education prior to when an incident occurs.

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When a de-energization event does occur, the pre-incident coordination group becomes a natural vehicle to coordinate response. Consistent with other anticipated events that are weather-driven, the OA held regular multi-agency calls - a practice that should continue and be enhanced.

The EOC Liaison positions for the Board of Supervisors and Cities proved extremely valuable in ensuring regular situation updates, cross-leveling status information, receiving input from County leaders and trouble-shooting issues with process or tools.

Recommendation 8.A: In advance power shutoff events, the County should begin OA-wide multi-agency coordination meetings that include public and private utilities, especially PG&E, to prepare for de-energization, identify cascading impacts, communicate priorities, identify needs, coordinate resources, develop consistent and joint information, and share tactics.

Recommendation 8.B: Develop just-in-time training on de-energization concepts, challenges, and response activities for new staff or as refresher training for current staff.

Recommendation 8.C: Refine procedures for OA-wide multi-agency calls to coordinate during a PG&E Power Shutoff:

- Participants should be conversant in power shutoffs events in advance of participating in coordination calls. This includes understanding terminology,



Findings and Recommendations: Operational Coordination	
	<p>having awareness of how de-energizations occur, understanding the impacts of past de-energizations, understanding their agency’s capabilities in terms of resources, continuity plans, the ability to function in a de-energization, and basic emergency management concepts including ICS and EOC organization.</p> <ul style="list-style-type: none">• Agencies should assign personnel to represent them on the call to minimize multiple repeated conversations and lessen discrepancies presented by multiple members of the same agencies.• Calls should have a consistent agenda to have predictability for participants. Consider structuring calls geographically, followed by functionally. A standing agenda should be distributed and adjusted as necessary.
9	<p>Finding 9: PG&E does not prioritize information sharing to cities.</p> <p>Although originally coordination plans included a more direct link between PG&E and OAs, various influences redirected the information-sharing mechanism to the State (see Finding 2). Communication with Counties became secondary. Communication with cities did not occur at all. Therefore, cities had to rely heavily on the County to convey information from PG&E, such as the 7-day forecast for a shutoff. However, this is a burden on the County’s resources when the focus is on communications with PG&E, adjacent counties, and the State.</p> <p>Recommendation 9.A: Clarify roles and responsibilities of the County and cities to establish a mechanism for the County to filter relevant information to the cities to adapt for their own communications teams and do their own follow-up (Santa Rosa is an example).</p>
10	<p>Finding 10: Jurisdictional authority for traffic control was unclear.</p> <p>Expectations and management of traffic control responsibilities at intersections with traffic signals under Caltrans jurisdiction were not coordinated or mutually understood by Caltrans or affected local governments in advance. In addition, as power shutoffs caused traffic control devices under local jurisdiction to be de-energized, these intersections were prioritized for remedies such as stop signs or staffed traffic control. Traffic management strategies varied from jurisdiction to jurisdiction and even from Caltrans district to district. Having multiple methods of intersection control during power outages caused confusion with the motoring public. This created a perception that certain intersections were being prioritized for power, when in fact they were separately operated. Intersections with de-energized traffic signals experienced an increase in collisions during shutoffs, so this issue is elevated as a public safety concern.</p>



Findings and Recommendations: Operational Coordination

Recommendation 10.A: Clarify authorities, roles, and responsibilities of Caltrans, the County and Cities for traffic control measures in an event when traffic signals are out. Clarify who is responsible for conducting traffic and implementing (procuring, setting up, and monitoring) alternative traffic control devices, such as stop signs, reflectors, public works signage, etc.

Recommendation 10.B: Work with Caltrans to clarify how they will notify the County and/or Cities when traffic lights under their jurisdiction are out so that law enforcement, traffic control, or signage can be coordinated if needed and deployed quickly to minimize risks to public safety.

Recommendation 10.C: Develop coordinated messaging that will be consistent between Caltrans and the County to educate the public for what to do when traffic signals are out (i.e., treat the intersection as a four-way stop).

Finding 11: Communications efforts were hindered by reduced cellular service capacity.

Providers of cellular services chose to eliminate access to data at compromised towers or towers experiencing heavy loads. The reduction and/or elimination of data service may reduce the ability to reach the community with alerts and warnings and communicate critical information.

When the County recognized that reduced data capacity was a public safety problem, they attempted to work with Cal OES to improve coordination with providers and gain capacity. However, Cal OES delegated the coordination tasks to the California Utilities Emergency Association (CUEA), and although major cellular service providers are members, CUEA was not effective as an intermediary to secure additional cellular service capacity for the County. The County requested that CalOES convene an emergency regional briefing for emergency managers by the wireless service providers but they decline to participate and deferred to CUEA. Cellular service providers would not guarantee devices to add capacity, stating there was competition for them, and prioritizing those agencies that have agreed to contract with FirstNet.

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Recommendation 11.A: Convene a multi-disciplinary planning group of County service providers and representatives of the whole community to determine priorities for restoring or enhancing cellular service capacity. Include governments at all levels, private and nonprofit sectors such as businesses; faith-based and community organizations; organizations that represent the needs of those with disabilities and others with access and functional needs; and the public.



Findings and Recommendations: Operational Coordination

Recommendation 11.B: Research whether cellular providers are regulated by the CPUC and determine the extent of their responsibilities during an emergency. Given the evolving nature of disasters and their effects, plus the widespread expectations that cellular service (including data) will always work, the operational capabilities of cellular providers need to be detailed and gaps identified. Conduct an assessment of whether additional regulations are required to ensure the functionality and resilience of cellular systems before, during, and after a disaster. Consider pursuing requirements for wireless service performance via the CPUC.

Recommendation 11.C: Engage with major cellular service providers serving the area to form a closer public-private partnership to strengthen the relationship with the County, increase information-sharing capabilities, and establish mutual trust and a mutual understanding of responsibilities. Identify when and where power shutoffs will result in significant loss of wireless systems.

Recommendation 11.D: Improve the capacity to maintain, temporarily scale up, enhance, or supplement wireless service capacity. Establish communications pathways with cellular service providers to communicate critical communications priorities and clarify the process for requesting additional capacity, including mobile power or broadcasting equipment.

Area for Improvement 4: Organization and Staffing

The County workforce is the first line of defense in addressing the demands that disasters place on the community. The multiple and consecutive de-energization events, occurring at the same time as a major wildland-urban interface (WUI) fire and the largest evacuation in Sonoma County's history, provide a clear picture of the effect extended emergency management operations have on personnel. In a de-energization, staff face unique challenges even when not evacuated, such as not being able to prepare meals, care for vulnerable family members, having to seek alternate accommodations, and having a reduced ability to operate outside of daylight hours, which occurs during or bookends typical 12-hour Operational Periods (i.e., 0700-1900). These situations reinforce the necessity for government to dedicate considerable effort to develop continuity into business practices, develop depth in staffing capabilities, and ensure procedures exist to effectively utilize the whole organization and partners where necessary. In particular, it was found that focus needs to be placed on the organizational capacity and staffing issues related to the EOC, DOCs, the JIC, COOP, and in support of shelter operations.

Findings and Recommendations: Organization and Staffing

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Finding 12: Consecutive PG&E Power Shutoffs, co-occurring with other incidents such as wildfire, create a stressful, intense, and complex environment for County



Findings and Recommendations: Organization and Staffing

personnel to operate efficiently in, resulting in short-term staff fatigue and long-term burnout.

Some positions in the emergency management organization (EOC, DOC, COOP group, JIC, shelter, etc.) are highly specialized and require specific training, knowledge, skills, and abilities. Other positions may be more general, especially when assisted by job aids or position checklists. Since all County personnel are Disaster Service Workers (DSWs) under Government Code § 3100 et seq., they may be re-tasked from their routine occupation to fill alternative roles to meet incident needs.

Recommendation 12.A: Review emergency staffing needs during de-energization events and conduct an analysis of available personnel to perform various roles and staff positions in non-day-to-day circumstances as part of the County's evaluation of its DSW program (see Finding 14).

Recommendation 12.B: Ensure that job aids or position checklists exist to assist in the execution of various emergency management roles and positions in the EOC, DOC, COOP group, JIC, shelter operations, and other operations. Ensure job aids or position checklists are validated through actual events or exercises.

Recommendation 12.C: Evaluate triggers for an increased readiness posture and EOC activation for de-energization events; for EOC activations, identify best practices for the duration of activation to balance the need for coverage and to make the activation as short as possible.

Recommendation 12.D: Consider developing an internal staff support capability as part of the EOC or COOP programs to enable staff to continue to perform as Disaster Service Workers (DSWs). Provide targeted staff resources including family/pet care, communications, food, sundries, alternate accommodations, and transportation.

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Finding 13: County employees may have multiple assignments during events that disrupt government operations, including ensuring the continuity of operations of essential services and supporting the emergency management organization. Therefore, some staff may have competing priorities. Either of these activities require singular focus and, especially during emergency role assignments such as supporting DOC or EOC operations, delegation of routine duties to other staff.

Ongoing events demand a balancing of employees identified by departments to support continuity of operations to perform essential services, participating in the COOP group, and those identified to participate in the EOC. Dedicated staff may be unable to put departmental tasks on hold in order to serve an emergency management role and may not have anyone to delegate to.



Findings and Recommendations: Organization and Staffing

Recommendation 13.A: Evaluate and refine tiered Essential Functions to understand which functions can be put on hold to free up personnel to serve in the COOP group, EOC, or fill other positions. Ensure emergency-assigned staff are supported by policy that provides for delegation of routine duties to other staff when assigned to emergency roles such as DOC or EOC staffing.

Recommendation 13.B: Identify and dedicate specific staff with knowledge, skills, and abilities to serve as COOP leads or COOP Manager.

Finding 14: The County's DSW program should be evaluated and reinforced to ensure that sufficient personnel are available to perform duties in an emergency in various circumstances and conditions.

Note: Due to the significant staffing impacts that resulted from the co-occurrence of the PG&E Power Shutoffs and the Kincade Fire, this finding also appears in the Kincade Fire AAR as Finding 7.

The simultaneous occurrence of the Kincade Fire and the PG&E Power Shutoffs had unique consequences on the ability of the County's personnel to perform their routine duties, roles as DSWs when activated, and ensuring the continuity of operations of the County government.

Some personnel were evacuated for the fire and had to seek alternate lodging or shelter at a time they were scheduled to work, in both disaster response and routine roles. Others experienced their work report locations being evacuated due to the fire or power shutoff and were unable to perform their duties. Confusion arose because there was lack of visibility of personnel status, largely due to compromised communications channels, unclear policy regarding the responsibility to report to work, and no ability for County staff to maintain a common operating picture regarding the impact of the events on the County's workforce. As a result, the County observed that personnel were not re-tasked efficiently to support the EOC; this could have alleviated some of the strain on those working multiple shifts. This created an inequitable burden on those who were activated, and it had a disparaging effect on morale. Staff reported to this AAR team that they felt that tasks should be more equally spread out when possible and appropriate.

De-energizations are expected to continue and may occur at the same time as wildfires. This will continue to require the activation of DSWs in various roles, and these roles and policies must be refined and communicated to all County personnel. Whenever possible, County must support and sustain personnel expected to work through difficult circumstances.

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Findings and Recommendations: Organization and Staffing

Recommendation 14.A: The Sonoma County Human Resources Department should evaluate the efficacy of the current delivery of its orientation of the DSW program to new hires at onboarding to ensure that personnel adequately understand their responsibilities in a disaster. The Department of Emergency Management should be a close partner in that training development and delivery, especially when addressing the authorities and corresponding limitations, especially when considering DSW badge identifications and seeking access to closed areas. Finally, a refresher curriculum should be developed to be delivered to employees periodically.

Recommendation 14.B: As part of the evaluation of the DSW program, the Human Resources Department should review and refine policies for compensation, based on employment categories, for overtime and stand-by labor for activities related to disaster work.

Recommendation 14.C: As part of the evaluation of the DSW program, the Human Resources Department should establish policies for compensation when facilities and alternatives critical to performing employment functions are unavailable, which may include re-tasking personnel for DSW roles.

Recommendation 14.D: As part of the evaluation of the DSW program, the Department of Emergency Management in coordination with Human Resources should evaluate options for providing lodging or shelter to personnel who are displaced by the incident and are critical to supporting the incident.

Recommendation 14.E: As part of the evaluation of the DSW program, the Human Resources Department should provide policy guidance to departments for determining and reporting employee status. This should be a part of each department's COOP as well. This information should be consolidated into a single reporting and management computer platform for consolidating all department information into a single common operating picture.

Area for Improvement 5: Supporting the Whole Community

As a concept, Whole Community is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests. FEMA defines the Whole Community to include "Individuals and families, including those with access and functional needs, businesses, faith-based and community organizations, nonprofit groups, schools and academia, media outlets, and all levels of government, including state, local, tribal, territorial, and federal partners." The Whole Community means that preparedness is a shared responsibility among all these partners. This area for improvement captures ways that specific participants from the Whole Community can be further supported to increase their disaster resilience and grow in their capacity to contribute to overall preparedness efforts.



Findings and Recommendations: Supporting the Whole Community

15

Finding 15: Direct impacts on members of the community, especially those already facing economic hardships, were significant.⁹

As PG&E de-energized communities, many residents experienced multifold economic impacts – not once, not twice, but multiple times, one after another. This is especially significant for those on a fixed income, low-income households, and those in the large agricultural industry in Sonoma County, the latter two often overlapping. Below are some circumstances that worsened economic stresses on the community and contributed to adverse economic circumstances, although there are many others:

- Lost wages due to place of employment being closed due to de-energization
- Place of employment having to lay off workers after a significant impact from business closure (see Finding 19)
- Inability to work from home
- Childcare or adult day care facility closed due to de-energization, requiring income earner to stay home
- Lost food (especially after having to replace food after previous power shut offs)
- Inability to cook at home and bearing the expense of eating out

Below are select quotes, including translations of quotes from Spanish, from the community survey responding to the following question: **“What did you need that you could not find or access in this incident?”** They demonstrate the hardship endured by the community during de-energizations (spelling in context). Many of these also reflect difficulties from evacuation:

“Many of my ESL students in Petaluma needed food”

“more help with loss of food and money from job”

“Could not access work.”

“I could not work. I lost 12 wine tours.”

“Had to pay \$61 a night for 4 nights which was tough on my senior/low income lifestyle.”

“I’m on a fixed income. By the end of the month, I have no money. So having an emergency happen at the end of the month meant I did not have extra funds for gas,

⁹ This finding is supported by an analysis of responses to 4 surveys deployed to the community in October 2019, including 2 surveys in Spanish.



Findings and Recommendations: Supporting the Whole Community

food, cash, and medications. I did not have refills and ran out of needed meds. I barely had enough gas to get to friends. I could not stay at shelters.”

“Information re: how long power was out - might not have had to toss a fridge/freezer worth of food. By the time we were allowed back, the electricity had been on long enough that all foods were frozen or chilled, depending on where they were. But there was no way to ascertain how long the appliance had lost power. So as not to get sick, everything that might cause food poisoning was tossed. That was a lot and a blow to my restricted income.”

There were also concerns expressed through the survey that food and water that were available for purchase were unaffordable, which may reflect the illegal practice of price gouging in a disaster.

Recommendation 15.A: See Recommendation 7.B (County should continue to advocate for the ability to categorize power shutoffs as incidents that meet the requirements of State of Emergency proclamations). State Emergency Proclamations would allow the County to provide significantly more resources and support to the community and recover said costs. It would also allow access to direct aid from the State via Mission Tasking.

Recommendation 15.B: Consider incorporating a dedicated role in the EOC focused on community impacts due to disaster. Leverage additional input from COAD member agencies.

Finding 16: There were adverse impacts on populations already facing challenges, - including those with disabilities and others with access and functional needs - that will need to continue to be addressed.

16

The PG&E Medical Baseline list does not provide sufficient visibility into the full scope of community members who may require additional support in a de-energization, including those with disabilities or experiencing other access and functional needs and individuals requiring refrigerated medication or critical electric powered life-maintaining devices. If PG&E is only committed to using these lists for outreach, they are not reaching enough of the population. In Home Support Service (IHSS) has a responsibility to a much more detailed population and will continue to work to meet their obligation to their high-risk clients. This may result in a duplication of effort between PG&E and IHSS, as opposed to a coordinated outreach strategy to support the greatest number of people. Currently, it is not PG&E policy to share the medical baseline list with responding agencies. Meanwhile, the IHSS list includes low-income



Findings and Recommendations: Supporting the Whole Community

clients, those who are likely to experience the greatest impacts from the cascading effects of power shutoffs.

Power shutoffs had specific impacts on the elderly living in care facilities who can be reached using a combination of the PG&E medical baseline, IHSS, and other sources. Cascading distresses included the economic stress from food loss, public health concerns regarding consumption unsafe foods, loss of refrigerated medication, psychological effects from isolation, and others.

Social workers working in the field observed that medical baseline customers were some of the least prepared members of the community despite PG&E outreach efforts.

Recommendation 16.A: Continue to work with PG&E to enable a process for sharing their medical baseline list to coordinate with the County's lists for outreach to those with disabilities and others with access and functional needs, including the IHSS program. Establish a process for maintaining and updating the outreach list.

Recommendation 16.B: Work with community organizations, faith-based organizations, Community Organizations Active in Disaster (COAD), and the Sonoma County Resilience Collaborative to identify and address gaps in populations through organizations that serve them. Support the coordination of a robust network with materials, information, and resources.

Recommendation 16.C: Review and refine public education and preparedness materials to support those with disabilities and others with access and functional needs for the County's website and other public outreach channels, such as pamphlets for Human Services Department clients and partner organizations. Public education and preparedness materials should include concrete, realistic, and actionable advice, including how to access resources and address issues unique to power shutoffs.

Recommendation 16.D: Identify reasons cited for medical baseline customers being inadequately prepared for disaster events and develop strategies to enhance these individuals personal preparedness in partnership with COAD member agencies.



17

Finding 17: There was increased demand for mental health resources due to the PG&E Power Shutoffs.¹⁰

Many responses to the community surveys deployed by Sonoma County include descriptions of trauma, stress, and struggle resulting in ongoing mental health issues. From the constantly changing circumstances, to uncertainty and lack of security, to ongoing economic challenges, residents suffered. Mental health considerations should be prioritized due to the duration and uncertainties of the event, adverse economic impact, and other stress factors with long-term consequences.

The following quote from a community survey response illustrates the mental health strain put on the community:¹¹

“Living alone & recovering from heart surgery was very hard to be in the cold, just flashlights & no TV, that is my company in the evenings, created a lot of stress for me”

Recommendation 17.A: Anticipate the need to scale-up mental health support and crisis management services based on expected demand, which may include identifying additional wrap-around services to augment current capabilities and contracting with service providers to expand the County’s ability to provide services.

Recommendation 17.B: Ensure mental health services considerations are included in all future planning. Consider bringing Mental Health into the EOC or expanding in the DHS DOC.

Recommendation 17.A: Evaluate how to adapt messaging about Post-traumatic stress disorder (PTSD) resources, such as those developed for the Kincade Fire, for power shutoff events. Resources and messaging should be coordinated to be consistent within the region, especially among neighboring OAs experiencing similar impacts, to be equitable.

18

Finding 18: De-energizations left many elderly and other vulnerable residents at home without heat in near-freezing temperatures.

As the wind died down during the last week of October, fire weather gave way to a freeze warning with temperatures expected to plunge well below freezing in some spots overnight on October 29-30.

Whether they were returning from a shelter to a de-energized residence, or if they were able to stay at home and suddenly found themselves in the dark, many residents were out of the elements, but still in the cold.

¹⁰ Ibid.

¹¹ Ibid.



Two overnight warming centers opened – one in Santa Rosa and one in Guerneville – but many residents were not able to travel to them because of a lack of transportation, the limited hours they were opened (10:00pm – 6:00am), mobility challenges, and a perception of populations served. Note: this situation was exacerbated by a large, multi-day natural gas shutoff conducted in the north County as part of the Kincade Fire response.

Below are some responses to the community surveys that illustrate the immense peril faced by some residents (spelling in context):¹²

“HEAT - we needed HEAT - I got very Cold and because of my Age and Health issues I ended up w / a Cold and my Movement was Impaired because I have Arthritis[sic]”

“We were unable to heat. We have propane heat with electric start. Mother-in-law is 89, and we were most concerned about her when weather turned cold”

Recommendation 18.A: Coordinate with counties and cities to ensure that climate control issues are reflected in the hazard assessment and CRCs are adequately structured and augmented by County and city shelters and necessary.

Finding 19: Businesses, especially small businesses, face tremendous challenges when dealing with multiple consecutive de-energizations, ranging from lost revenue due to closures, to loss of perishable stock.¹³

Small businesses face an existential threat when closed for more than 72 hours due to de-energization. Few businesses that were affected had business interruption insurance to cover closures that were due to power outages that were determined in advance. One business reported the loss of approximately 20,000 products.

19

Below are select quotes from the community survey responding to the following question: **“What did you need that you could not find or access in this incident?”** They demonstrate the hardship endured by the business community during de-energizations. Many of these also reflect difficulties from evacuation:

“Help for lost revenues in business. I am still struggling to catch up at great detriment to my family and personal stress levels.”

“I needed for my business to be open!”

“We were ok, yet we lost so much business and people have cancelled events through December as they do not trust we will have power.”

¹² Ibid.

¹³ Ibid.



In addition, many businesses, especially small businesses, did not have plans to address continuity of business, including where to get alternate supplies.

Recommendation 19.A: *See Recommendation 7.B (County should continue to advocate for the ability to categorize power shutoffs as incidents that meet the requirements of State of Emergency proclamations). A pathway to a State of Emergency proclamation would allow the counties and cities to provide significantly more resources and support to the business community and recover said costs.*

Recommendation 19.B: Promote tools from the Sonoma County Economic Development Board (EDB) to the business community, who have resources and checklists for preparing businesses for power shutoffs and business recovery

Recommendation 19.B: Consider establishing a Private Sector Workgroup with appropriate representation from the County organization and invite private sector participants to take part in coordinated planning efforts. Consider the use of aggregating groups like Chambers of Commerce, the Sonoma County Vintners association, and others to capitalize on existing communication networks. (Kincade Fire AAR Recommendation 3.A) Ensure a special de-energization focus on coordinating with grocery stores and gas station businesses. Consider developing a Private Sector Liaison position in the EOC.

Area for Improvement 6: Public Information

Lack of coordination leads to a tremendous potential for inconsistency, misinformation, and confusion.

FEMA defines the Public Information and Warning core capability as the ability to “deliver coordinated, prompt, reliable, actionable information to the whole community through the use of clear, consistent, accessible, and culturally appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.”¹⁴

The Alert and Warning capabilities are covered separately in the Sonoma County Kincade Fire and PG&E Power Shutoff Alert and Warning After-Action Report.

Findings and Recommendations: Public Information	
20	<p>Finding 20: There are opportunities to further improve and coordinate public information efforts to leverage existing structures and improve the rate of public message delivery and reach.</p> <p>Recommendation 20.A: All affected jurisdictions within the OA should adapt and tailor the information provided by PG&E while working to maintain consistency through a</p>

¹⁴ FEMA, National Preparedness Goal, September 2015



Findings and Recommendations: Public Information

JIS. Leveraging the JIS can minimize inconsistencies and help unify messaging creating a “whole of government” response in an environment where multiple agencies are developing public messaging simultaneously.

Recommendation 20.B: Evaluate the messaging content used in 2019 and revise as necessary to use as template language for future events.

Recommendation 20.C: Establish a protocol to disseminate public information as soon as notified of a potential shutoff by PG&E, ideally 5 and 3 days from the forecasted shutoff, respectively. PG&E would notify residents up to 48 hours in advance, whenever possible. County public information should focus on broadly applicable preparedness in order to support a “culture of preparedness,” not a culture of fear. Receiving reminders of potential shutoffs and preparedness tips may have the additional effect of encouraging residents to talk about solutions and make plans to assist themselves and others, as they are able. Efforts among the community to enhance their personal preparedness lessens the demand placed on the County during response operations and promotes greater response efficiencies.

Recommendation 20.D: Evaluate the potential for expanding translation capabilities from bilingual (Spanish) to multilingual for all media formats to reach more potentially isolated individuals within the community.

Recommendation 20.E: Improve the process of following up on public information and alerts when the situation improves to announce an “all clear,” that communicates to residents that they can return, etc., much like provisions of nuclear attack preparedness in the past.

Finding 21: It is ineffective to have text messages link to a website in a de-energization when cellular data constraints may not allow users to access the internet (data demands of text messages are relatively small compared to the internet, i.e., “surfing the net”).

21

Data demands of text messages are relatively small compared to the internet, which was throttled by a significant reduction in cellular service and other impacts on internet service delivery that requires electricity (see Finding 11). Residents throughout the County reported attempting to access public messages disseminated by the County, but not being able to load any web pages.

The following community survey responses responding to the following question: “What did you need that you could not find or access in this incident?” illustrate the



Findings and Recommendations: Public Information

experience residents had with attempting to access information through the internet (spelling in context):¹⁵

“Unable to access Nixle alerts due to no cell service/internet. Friends were screen shooting me the info. Felt unsafe if what was going on being that we had no TV/internet or cell coverage.”

“Information on what was going on. Had no internet or TV. Listened to radio but that largely applied to Santa Rosa - not rural areas.”

“Internet service was down for 10 days, cell service was limited to text only, NO notification of gas shutoff.”

“Internet was not helpful. Cell access was ineffective as it was turtle slow.”

Recommendation 21.A: Conduct an analysis to determine limitations and best practices for communication and warning methodologies during power disruption scenarios. Identify communities that are challenged with cellular services, such as rural communities.

Recommendation 21.B: For de-energization events, ensure that protocols are in place to disseminate critical information using methods that are the most accessible, and have adequate redundancy for multiple communications methods and channels. For example, include protocols to communicate using resources such as telephone calls to landlines and cellular phones to residents having limited text capabilities or service. NOAA radios provide an additional resource to promote to these communities for redundancy in communications. Take into considerations the needs and requirements of communities identified in the survey/study done in Recommendation 21.A.

22

Finding 22: The County’s current Joint Information Center (JIC) concept has significant gaps and misalignments in coordination, which resulted in delays of information being released to the public.

Note: Due to the co-occurrence of the PG&E Power Shutoffs and the Kincade Fire, this finding also appears in the Kincade Fire AAR as Finding 16.

The JIC, as it functioned during the PG&E Power Shutoffs, encountered operational challenges coordinating with city partners. The fast-moving circumstance created the occasion for misalignment of expectations and capabilities between County operations, whose PIOs have the authority to make decisions and expedite messaging, and city partners, who have a separate approval process. Public information priorities

¹⁵ Ibid.



Findings and Recommendations: Public Information

for the County and cities did not align, but due to the co-location, the various public information entities were unable to disconnect and address their priorities independently. Finally, it was observed that some PIOs were following approval processes for routine messages that do not apply during an emergency. Using routine approval processes in emergencies risk delay in time sensitive scenarios. Public safety agencies have this authority on behalf of their jurisdictions, so it is unclear why their approval process would be different during a disaster.

Although best practices indicate that local governments should participate in the OA JIC, it is clear that in the Sonoma OA, this concept needs to be refined with authorities, roles, and responsibilities defined and documented. The relationships among the various public information organizations need to be coordinated in greater depth as well, so city and County partners are able to collaborate effectively without hindering each jurisdiction's operations.

Recommendation 22.A: Establish an OA-wide PIO working group to discuss issues and develop strategies in advance of an event to improve coordination with cities and not hinder future performance. *Completed.*

Recommendation 22.B: Refine the Joint Information System (JIS) concept and develop a JIS plan with a charter to address authorities, roles, responsibilities, a concept of operations describing how to work with partners, share information, and how to integrate into the CAL FIRE JIC. Examine various models and practice communication protocols to determine the best fit for the OA.

Recommendation 22.C: The new JIC procedures recommended in the Kincade Fire AAR (Recommendation 13.B) should include specific agreements between participating jurisdictions to establish a process and protocol and to include clarification of public messaging approval process.

Area for Improvement 7: Additional Investments

The 2019 PG&E Power Shutoffs identified a number of areas that should be considered for future investment opportunities. Emergencies require substantial equipment, facilities, and supply needs to carry out the incident objectives. Incident management facilities such as the EOC and DOCs must be able to fully support the people and equipment required to carry out the mission. While there is always a balance between adequately preparing for future disasters and ensuring day-to-day jurisdictional needs are being met, considerations must consider the challenges that exist in actual emergencies and the limitations that present themselves in emergency events.



Findings and Recommendations: Additional Investments

Finding 23: The EOC facility has insufficient space, equipment, and resources to manage an increasing number of EOC activations that require coordination with a greater number of internal departments and external cooperators, especially when COOP activities and/or scaled-up public information efforts are required.

Note: Due to the co-occurrence of the PG&E Power Shutoffs and the Kincade Fire, this finding also appears in the Kincade Fire AAR as Finding 19.

Sonoma County is aware that the EOC facility is insufficient at current size, as identified as an area for improvement in the 2017 AAR and is exploring options to address this issue.

Enhanced COOP activities, such as employee status tracking and reassignment, facility relocation, and the fulfillment of essential functions, have no unified location to take place in a coordinated manner when the EOC is activated and County staff are being reallocated to support the event. The COOP team requires a separate space from the EOC organization but with access to the EOC to ensure the continuity of functions of County services, however, the most seamless manner of coordination for the COOP team and EOC is for the two functions to be closely located to share information in real-time.

23

Similarly, the PIO team currently does not have adequate space in the EOC, which hinders their ability to produce coordinated content and work in tandem with the EOC. As a workaround during the co-occurrence of the Kincade Fire and PG&E Power Shutoffs, the PIO team established a trailer in a temporarily vacant lot next to the EOC in order to be close to the EOC but have a dedicated space where they were able to focus on writing tasks and coordinate information. This was a significant improvement from past activations but was not accepted as an effective long-term solution.

Recommendation 23.A: The County should continue to explore all possible options to construct a new, state-of-the-art EOC to meet its desired operability, communications, and support goals.

Recommendation 23.B: Construct or reserve a dedicated space for the PIO team, co-located with the EOC, to fit the following parameters:

- Support up to 20 work stations
- Provide 2 computer monitors per work-station to view multiple social media channels and be able to craft messaging
- Install large monitors on walls that are capable of displaying static information, social media feeds, etc.
- Provide white boards and breakout meeting spaces
- Provide space and technology for media briefings



Findings and Recommendations: Additional Investments

- Provide studio space to produce in-house video content and streaming content

Recommendation 23.C: Consider the need for additional space for larger incidents when the PIO team needs to be larger to meet the increased workload and the EOC workspace is rendered insufficient, which should be exceptional, not routine. Expanding the amount of space dedicated to the PIO Team should be coupled with reconfiguring the team distribution and using the additional space for larger staffing requirements for media and social media monitoring and supporting the field PIOs when they are not in the field. The PIO staff for the EOC should be focused on integration of the PIO function with EOC operations and manage internal EOC communications. Expansion space could be achieved through a portable office trailer delivered to the EOC or through reuse of other County office space as a more distant satellite location. In either case, workflow, process, and guidelines will be needed whenever the baseline configuration has to be changed.

24

Finding 24: In-ground fuel tanks require power to be able to pump fuel.

As fuel becomes increasingly scarce throughout the County, stations with underground tanks that are still functioning quickly become competitive. Other stations that do not have energized pumps for in-ground tanks will have fuel that may be critical to support essential and prioritized County functions.

Recommendation 24.A: Develop a fuel plan to include prioritization, security, movement, and alternative sources.

Recommendation 24.B: For government-owned fuel stations, consider installing manual transfer switches to support disaster-installed generators to support pumping of fuel.

Recommendation 24.C: Procure manual pumps to extract fuel from de-energized in-ground tanks.

Recommendation 24.D: Procure a fueling vehicle for the County in order to facilitate refueling of generators and vehicles when commercial resources are not available or cannot keep up with demand.



APPENDIX A: ACRONYMS

AAR	After Action Report
AFN	Access and Functional Needs
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
COOP	Continuity of Operations Plan
CRC	Community Resource Center
DEM	Department of Emergency Management
DHS	Department of Health Services
DOC	Department Operations Center
DSW	Disaster Service Worker
EOC	Emergency Operations Center
FAST	Functional Assessment Service Team
GIS	Geographic Information Systems
HSD	Human Services Department
ICP	Incident Command Post
IMT	Incident Management Team
JIC	Joint Information Center
JIS	Joint Information System
LNU	Sonoma-Lake-Napa Ranger Unit
OA	Operational Area
PG&E	Pacific Gas and Electric Company
PIO	Public Information Officer



APPENDIX B: POWER SHUTOFF AND KINCADE FIRE TIMELINE

Aug 6, 2019	Board of Supervisors approves Electrical System De-energization Annex
Sep 22, 2019	PG&E notifies Sonoma County of likely power shutoffs
Sep 23, 2019	PG&E notifies Sonoma County of likely power shutoffs
Sep 23, 2019	County Administrator issues local emergency proclamation for imminent De-Energization Events and risk of fire due to Red Flag conditions
Sep 23, 2019	Sonoma County EOC activated
Sep 24, 2019	PG&E notifies Sonoma County of likely power shutoffs
Sep 24, 2019	Board of Supervisors ratifies emergency proclamation
Sep 24, 2019	County DEM presents and updates Electrical System De-Energization Events planning efforts to Board of Supervisors
Sep 25, 2019	Power Shutoff
Sep 25, 2019	Weather conditions improved compared to forecasts - <1,000 residents power off
Sep 25, 2019	Sonoma County EOC Closed
Sep 26, 2019	Power Restored
Oct 8, 2019	Board of Supervisors terminates emergency proclamation
Oct 8, 2019	PG&E notifies Sonoma County of large-scale power shutoffs
Oct 8, 2019	First WEA message launched (7:42pm)
Oct 9, 2019	Power Shutoff
Oct 9, 2019	Power Restored
Oct 22, 2019	High winds with historic wind speeds reach area
Oct 23, 2019	Sonoma County EOC activated (8:00am)
Oct 23, 2019	Power Shutoff
Oct 23, 2019	Kincade Fire ignited
Oct 24, 2019	County Administrator issues local emergency proclamation for Kincade Fire
Oct 24, 2019	Governor issues state emergency proclamation
Oct 24, 2019	Evacuations affecting 1,655 people
Oct 24, 2019	Kincade Fire at 10,000 acres (7:00pm)



Oct 25, 2019 Power Restored

Oct 26, 2019 Shelters opened (1168 sheltered)

Oct 29, 2019 Power Shutoff

Oct 29, 2019 Kincade Fire at 74,324 acres (2:00am)

Oct 29, 2019 Evacuations affecting 135,485 people, shelters housing 3,305 people

Oct 30, 2019 Public Health Officer proclaims local health emergency due to Kincade Fire

Oct 31, 2019 Kincade Fire at 76,825 acres

Oct 31, 2019 PG&E Retoring Gas Service to Kincade Fire impacted populations

Oct 31, 2019 Evacuations affecting 3,381 people, shelters housing 858 people

Oct 31, 2019 Weather forecasting below freezing temperatures overnight

Oct 31, 2019 Board of Supervisors ratify emergency proclamation

Nov 1, 2019 Power Restored

Nov 1, 2019 Public Health Officer issues emergency order concerning re-entry and handling/transport/disposal of fire debris

Nov 5, 2019 Board of Supervisors ratify health emergency order

Nov 7, 2019 Kincade Fire Controlled

Nov 20, 2019 Public Alert for 6th Power Shutoff

Nov 20, 2019 Power Shutoff

Nov 21, 2019 Power Restored

Dec 17, 2019 Board of Supervisors extends emergency proclamation

Feb 11, 2020 Board of Supervisors extends emergency proclamation



APPENDIX C: AFTER ACTION REPORT PARTICIPANTS

Kincadee AAR Workshop

- Dan Marincik, Santa Rosa Police Department
- David Boettger, Santa Rosa Police Department
- Josh Ludthe, Santa Rosa Police Department
- Jeff Nicks, Rohnert Park Public Safety
- Celeste Philip, Sonoma County Department of Health Services
- Cecilia Quiambao, City of Petaluma
- Chris Jones, Golden Gate Bridge Highway Transportation District
- Dagny Thomas, Sonoma County Department of Emergency Management
- Jeff DuVall, Sonoma County Department of Emergency Management
- Lisa Figueroa, Sonoma County Department of Emergency Management
- Sonja Moug, Sonoma County Department of Emergency Management
- Sam Wallis, Sonoma County Department of Emergency Management
- Dan Widger, Sonoma County Department of Emergency Management
- Caroline Judy, Sonoma County General Services
- John Kessel, Sonoma County Administrators Office, Office of Recovery and Resiliency
- Mickie Tagle, Town of Windsor
- Bill Braga, Sebastopol Fire Department
- Jeff Schach, Petaluma Fire Department
- Paul Lowenthal, Santa Rosa Fire Department
- Tony Gossner, Santa Rosa Fire Department
- Neil Bregman, City of Santa Rosa
- Paul Fleckenstein, CAL FIRE
- Brian Buckhant, CalOES
- Dave Jeffries, City of Sonoma
- Jim Comisky, Sonoma Valley Fire District
- Joe Irvin, City of Healdsburg
- Rhea Irvine, City of Healdsburg

Executive Session

- James Gore, Member Board of Supervisors
- Sheryl Bratton, County Administrators Office
- Christel Querijero, County Administrators Office
- Janell Crane, Sonoma County Human Resources
- Lisa Figueroa, Sonoma County Department of Emergency Management
- Jeff DuVall, Sonoma County Department of Emergency Management
- Chris Godley, Sonoma County Department of Emergency Management



Public Information Officer/Joint Information Center Phone Interview

- Lisa Figueroa, Sonoma County Department of Emergency Management
- Jennifer Larocque, County of Sonoma
- Melissa Valle, County of Sonoma

Kincade Fire After-Action Report Survey

- Joe Irvin, City of Healdsburg
- Christine Jacobs, California Highway Patrol
- Dan Widger, Sonoma County Department of Emergency Management
- Keith Lew, General Services Department
- Toni Anthony Holland, General Services Department
- Wayne Wirick, City of Sonoma
- Representative, General Services Department

Combined Kincade Fire & PG&E Power Shutoff After-Action Report Survey for PIO Team

- Carly Cabrera, County of Sonoma, Department of Emergency Management
- Kris Montgomery, Human Services Department
- Alberto Botello, Department of Child Support Services
- Felicity Gasser, Sonoma County Community Development Commission