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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

FILED
05/16/19
04:59 PM

Rec'd at Meeting 8/6/19
Item No. 3.1
From: William Abrams

Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.

Rulemaking 18-12-005
(Filed December 13, 2018)

COMMENTS OF WILLIAM B. ABRAMS ON ASSIGNED COMMISSIONER'S PROPOSED DECISION ADOPTING DE-ENERGIZATION (PUBLIC SAFETY POWER SHUT-OFF) GUIDELINES (PHASE 1)

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May 16, 2019

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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William B. Abrams received party status via written ruling on January 24, 2019.

William B. Abrams respectfully submits these Comments on Assigned Commissioner's Proposed Decision (Phase 1), issued in this Rulemaking (R.) 18-12-005 (De-Energization) on March 8, 2019 (Phase 1 Scoping Memo). These Comments are timely filed and served pursuant to the Commission's Rules of Practice and Procedure and the Phase 1 Scoping Memo.

William B. Abrams appreciates the opportunity to participate in this important rulemaking proceeding. The comments below address the proposed decision (PD) for this proceeding.

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I. Summary

a. Caution: De-Energization May Disincentivize Wildfire Risk Mitigation

I appreciate the thoughtfulness of the proposed decision and the difficult balance the California Public Utilities Commission (CPUC) faces as it considers the public safety and the financial interests of the Electric Investor-Owned Utilities (IOUs). As a wildfire survivor, I know the implications of this decision and understand that some darkness and power shutoff as a last resort is a small public sacrifice as compared to loss of lives, homes, businesses and communities that has been an all too common result of IOU caused wildfires. That said, this is only a tradeoff because the utilities have not done the other risk mitigation necessary as a prudent manager to protect the public. For too long, short-term return for IOU investors has been prioritized over the long-term health and safety of our energy grid. Through this proposed decision, we must be careful not to inadvertently provid an easy-out for IOUs to deprioritize other risk mitigation (system hardening, vegetation management, innovation, etc.). It is not enough to state that IOUs must de-energize as a "last resort".

Yes, it would be great to assume that given the urgency of our times IOUs would take it upon themselves to innovate the energy grid and do the risk mitigation necessary to meet the climate change dynamics we face. However, the utility stated backlog of technology improvements, process improvements and delayed implementation timelines for risk mitigation tell a different story. Given the lack of competitive pressures within a natural monopoly environment, it is easy to see how a loosely defined "last resort" can inadvertently become a very large loophole if de-energization is not sufficiently constrained with measurable justifications for its use.

b. Caution: Diffusion of Responsibilities produces Lack of Accountability

Yes, we all have responsibilities for wildfire risk mitigation and public safety and must work collaboratively to address the increasing risks that a warming planet provides. As a wildfire survivor, I have a special responsibility to rebuild my home with home hardening practices and a fire-wise landscape. As a "last resort", I will need to identify

an evacuation route for my family so that the harrowing experience of October 8, 2017 will never again traumatize my family.

However, saying that we all have "shared responsibilities" does not mean that we also don't have sole responsibilities or "ownership" of tactics as individuals and as an Investor-Owned Utilities. It should concern all residents, that one word that cannot be found anywhere in the proposed decision is "accountability". This is critically important because "accountability" in this context is forward-looking risk mitigation. Too many of the tactics described in the PD are shared with no "owner". As a prudent manager in my business life, I collaborate on a regular basis but prudent planning requires owners to be identified to ensure accountability throughout an organization and particularly when cross-organization workstreams are formed across sectors in large scale initiatives such as this. I caution the Commission to consider that this proposed decision leaves too many tasks open to "I thought you were going to do that" results. In my markups to the PD in subsequent sections, I have tried to make sure that ownership and accountability is more prevalent but despite these efforts more is needed so that a diffusion or responsibility does not leave us all more vulnerable to wildfires and safety issues during de-energization events.

c. Caution: Disconnected Tactics without Cohesive De-Energization Strategy

The regulatory definition provided in the proposed decision provides some valuable structure to de-energization tactics to further public safety. However, when tactics are not connected by strategy, they are not as effective and in some cases may work against each other causing an overall reduction in effectiveness. There are many areas of concern regarding this lack of connectedness but I want to highlight two in particular.

Re-energization seems to be an outlier and not treated within the scope of the overall de-energization process. How we turn power back on in some ways is the riskiest part of the de-energization process but it is the most undefined in the proposed decision. There is a considerable lack of definition regarding re-energization in this proposed decision. How should IOUs re-energize safely? How should IOUs collaborate with first responders and public safety officials when power is turned back on? What are the customer notification standards for re-energization? Arguably, this re-energization

component is the most dangerous and most likely to cause a wildfire but the least incorporated into this proposed decision. I have recommended updates in subsequent sections of my comments to help address this issue.

Another major area where we seem to not adequately tie tactics together is around communications. In my opening comments, I spent considerable time outlining how the Commission should not care and cannot regulate the communication vehicles themselves as a way to ensure safety. Performance-based outcomes of an IOU communication strategy and not activity-based communication is what should define successful communications for de-energization events.

These are not some futuristic measures that are currently unattainable as IOUs would lead us to believe as part of this rulemaking but business-as-usual measures that need transparency for effective regulation by the CPUC. Just today, PG&E put forward to the CPUC in a voting meeting (see October 16, 2019 CPUC voting meeting agenda) "Pacific Gas and Electric Company's Request for Approval of Proposal and Cost Recovery for Click-Through Performance Metrics Pursuant to Resolution E-4868". This request outlines some very specific communications metrics including "page views per path, unique visitors per path, response time per page: mean, max., standard deviation, and 90th percentile, dwell time per page: mean, max., standard deviation, and 90th percentile, number of total requests for customer Service Agreements, Mean response time, Median response time, Number of requests that resulted in more than 90 second response time, Percentage of requests that resulted in more than 90 second response time, Number of total requests, Number of requests available within 90 seconds, Number of requests available within two days". Wow, those are some well-developed outcome-based communication metrics that must inform a great communication strategy!

So, when it comes to the revenue generation side of the business, PG&E communication strategy is governed by a high degree of interdependent metrics to optimize ROI for investors and to inform bills sent to ratepayers. However, when it comes to safety and de-energization strategy we are left with disconnected communication activities funded by ratepayers and disassociated from an effective communications strategy which is not based upon results? This should be unacceptable to the Commission but only through an effective results-based regulatory framework

incorporated into this proposed decision can we hope to effectively motivate and regulate our IOUs.

d. PG&E Currently Out of Compliance with Proposed Decision

On April 25, 2019 AFTER parties to this proceeding and parties to R.18-10-007 were able to provide response comments, PG&E filed this amendment to their Wildfire Mitigation Plan (WMP) http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M283/K824/283824582.PDF. Although this amendment is full of material changes in tactics related to de-energization, an amendment was not filled as part of this proceeding. Despite this filing disconnect, it still leaves PG&E with operational challenges and noncompliance issues relative to this proceeding. Specifically, this amendment includes the following:

- **Resiliency Zones to Support De-Energization Delayed Indefinitely** – On page 6 of their amendment, PG&E states they will "delay construction of Resiliency Zone". "In the Plan, PG&E proposed having its first, pilot resilience zone operational by June 1, 2019, so it would be available to provide power during the 2019 wildfire season in the event of a PSPS event." In this amendment they added the words "as soon as feasible" leaving residents unsure as to timing of these efforts.
- **Required "Patrol of Lines" Prior to Re-Energization Removed** - The PG&E amendment (page 7) changes "patrol all lines" after a de-energization event to "will exercise operational judgement to determine…". Similarly, on page 20-21 they eliminate the term "all protection zones" and instead add "PG&E will exercise operational judgement…". This change materially effects the safety of residents during PG&E de-energization events.
- **Recloser Operations Delayed Indefinitely** – PG&E indicated that SCADA enabling of reclosers would be completed by June 1, 2019 in their WMP and in this recently filed amendment (page 15-16) they state "as soon thereafter as is feasible" despite their note that it would be done "in advance of exposure to elevated wildfire risk conditions". This materially increases the size and scope of de-energization events in PG&E territory.

Equally important as the implications of these changes to de-energization processes this wildfire season is the statement this amendment makes to the overall efficacy of this proposed decision and the genuine effort of the CPUC to regulate safety. When a regulatory framework is based upon activities and general shared-responsibilities as opposed to results, it is all fungible and leaves investor-owned utilities unaccountable. If we instead recast this proposed decision based upon results-oriented metrics and ownership of tasks/deliverables, we will get the type of accountability we need to ensure de-energization is done safely and as a last-resort. This is critical to ensure de-energization is effectively leveraged as part of an overall wildfire risk mitigation strategy.

II. Findings of Fact

1. The 2018 wildfire season in California was the most destructive on record.
2. Electric utility infrastructure has been a leading cause of wildfire ignitions.
3. De-energization is the electric utility practice of transferring the responsibility of power generation and distribution to residents to reduce the likelihood that utility infrastructure can cause or contribute to a wildfire. It is a measure that can be used after the electric investor-owned utility has exhausted all other means to protect against the risk of wildfire ignitions as a result of utility infrastructure.
4. Regional variability in topography, weather, and on-the-ground utility employee assessments impact de-energization decisions.
5. The electric investor-owned utilities serve diverse territories ranging significantly in size and topography.
6. De-energization can have disproportionate impacts on certain populations.
7. Adopting standardized definitions and customer designations allows the electric investor-owned utilities, CalOES, CAL FIRE, other state and local government agencies, critical facilities and infrastructure, public safety partners, the Commission, and customers to operate with a shared understanding and language throughout a de-energization event.
8. Advanced identification of primary, secondary, and if possible tertiary 24-hour points of contact for public safety partners and primary and secondary 24-hour points of contact for critical facilities and critical infrastructure, updated in real-time or within 48-hours, is essential to ensure a safe and effective de-energization event.
9. The electric investor-owned utilities cannot identify all AFN populations within their service territories at this time.
10. Partnering with local governments and social service agencies will help electric investor-owned utilities identify AFN populations within their service territories.
11. It is essential to identify customers dependent upon life-sustaining medical equipment and mobility equipment that requires electricity so that the electric investor-owned utilities and public safety partners can assist those customers in advance of and during a de-energization event.

12. Advance notice of a de-energization event allows public safety partners, critical facilities and critical infrastructure, AFN populations and utility customers time to prepare for and respond to a de-energization event.
13. Accurate and timely communication with and notification to first responders/emergency responders, state and local government entities, public safety partners, critical facilities and affected customers within the boundaries of a de-energization event is critical to ensure safe and orderly de-energization.
14. Coordinated responses, including messaging, among electric investor-owned utilities, first responders and emergency responders, public safety partners and state and local jurisdictions/governments is necessary to protect the public safety during a de-energization and re-energization events.
15. There are two forms of de-energization notification and communication and one form of re-energization communication: (1) education and public outreach in advance of wildfire season to ensure that procedures and processes are in place with public safety partners and that customers are aware of de-energization and know how to prepare; and (2) notice and communication of a potential, imminent, or a suddenly occurring de-energization event. Additionally, there should be a (1) notice of re-energization to safeguard against wildfire ignitions caused by restoration of power after a de-energization event.
16. Priority notification of public safety partners and adjacent jurisdictions that may be impacted by a de-energization event enables those with public safety responsibilities to be adequately prepared.
17. There may be times when advanced notification of a de-energization event is not possible. In these circumstances, it is expected that investor-owned utilities will provide rationale and justification to the CPUC as well as to state and local jurisdictions/government for why notification was not possible.
18. Adopting an advanced notification timeline, while affording the electric investor-owned utilities flexibility to adjust the timeline based upon situational awareness and real-time events, allows public safety partners, critical facilities and critical infrastructure, and affected customers time to prepare for and respond to an imminent de-energization event.
19. The electric investor-owned utilities, as the entities with the most knowledge of and jurisdiction to call a de-energization event, are accountable and responsible for providing notification in advance of, during, and after a de-energization event.
20. Local jurisdictions are responsible for notification and communication related to other emergency events. However, given that ignition sources are often not determined until after a wildfire event, it will be incumbent upon investor-owned utilities to air on the side of caution and provide notification and communication when the source of the wildfire is undetermined.
21. Consequences of de-energization and subsequent re-energization should be treated with urgency and transparency as any other emergency that results in a loss of power.
22. Integrating into and leveraging existing state and local emergency outreach and notification systems, such as the California Alert and Warning Guidelines, and developing pre-scripted templates and messages that are Common Alerting Protocol compliant enables a more robust notification effort and allows local jurisdictions the ability to provide secondary or supplemental notification and outreach.

23. Public outreach and education in advance of wildfire season are critical components to ensure that AFN populations are prepared and know how to respond to a de-energization event or any emergency event that may result in a loss of power.
24. A statewide education campaign will help citizens prepare for and obtain information during a prolonged loss of power.
25. Educating public safety partners about the characteristics and thresholds that the utility considers in determining whether to de-energize, such as temperatures, wind speeds, and humidity, enables public safety partners to conduct parallel planning and preparation. Conversely, active collaboration with these public safety partners will inform these inter-dependent thresholds and enable investor-owned utilities to refine their de-energization determinations.
26. Informing public safety partners of the boundaries of de-energization event, circuits to be de-energized, information regarding customers within the de-energization boundaries (e.g. medical baseline customers), the estimated start date and time of the de-energization event, the estimated length of the de-energization event, patrols of lines to occur prior to re-energization and the estimated restoration time, will facilitate a coordinated response to these events and enhance public safety.
27. It is difficult to predict in advance the duration of a de-energization event. It is difficult for ratepayers to manage personal power generation and distribution during a de-energization event.
28. Accurate, complete, compatible and timely geospatial information that can be rapidly integrated into public safety partners' existing geospatial tools is critical in facilitating decision-making at the state and local levels.
29. Providing customers with information regarding the timing and estimated duration of a de-energization event in a format consistent with the best practices articulated in the California Alert and Warning Guidelines enables customers to better prepare for these difficult to manage events.
30. The California Alert and Warning Guidelines provide guidance and expectations for jurisdictions throughout California on the tools to use to alert the public to dangerous conditions and warn of emergencies.
31. To be effective, notifications should be informed by a comprehensive and cohesive communications strategy that engages the right mix of tactics and communication vehicles, both to increase reliability of warning delivery and to provide a sense of corroboration that will encourage recipients to take protective actions.
32. Some rural areas lack access to broadband services.
33. During a de-energization event, customers may not have access to communication channels that rely upon electricity, such as broadband services, cellular services, etc.
34. SEMS is a structure for coordination between government and local emergency response organizations. It enhances and facilitates the flow of emergency information and resources within and between the organizational levels of on-the-ground responders, local government, operational areas, regions and state management.
35. Advanced provision of GIS data to local jurisdictions, including the location of critical facilities and infrastructure, circuit maps and number of medical baseline customers, will facilitate preparation for future de-energization events.
36. The Incident Command System governs formation and staffing of EOCs.
37. It is possible that a local jurisdiction will not form an EOC for a de-energization event.

38. Requests to delay de-energization currently occur on an ad-hoc basis. Further development of the record is required to adopt standardized de-energization delay parameters.
39. De-energization could exacerbate another subsequent emergency, e.g. if a wildfire ignites in a de-energized area and water infrastructure lacks electricity to provide adequate water services for fire suppression. Utilities will work to minimize these impacts through consistent and effective communications and collaboration with first responders.
40. To date, de-energization has occurred primarily on the distribution system; transmission-level de-energization may become necessary in the future.
41. De-energization of transmission lines may have different and not yet fully understood impacts as compared to de-energization of distribution lines. Utilities are responsible and accountable for the safe de-energization of distribution lines.

III. Guidelines (Appendix A)

Overarching Guidelines

- Customers should understand the purpose of proactive de-energization, the electric investor-owned utilities' process for initiating it, how to manage safely through a de-energization event and the impacts if deployed. To accomplish this, the electric investor-owned utilities must:
    - develop and use a common nomenclature that integrates with existing state and local emergency response communication messaging and outreach and is aligned the California Alert and Warning Guidelines.
    - develop notification and communication protocols and systems that reach customers no matter where the customer is located and deliver messaging in an understandable manner.
    - communicate to customers in different languages and in a way that addresses different access and functional needs using multiple modes/channels of communication.
- Deploying de-energization requires a coordinated effort across multiple state and local jurisdictions and agencies. Coordination in preparation for de-energization is a shared responsibility between the electric investor-owned utilities, public safety partners, and local governments. However, as a prudent manager, utilities are ultimately responsible for safe and reliable service including during de-energization events. The electric investor-owned utilities must work with the California Governor's Office of Emergency Services to integrate their warning programs with the agencies and jurisdictions within California that have a role in ensuring that the public is notified before, during, and after emergencies.
- Utilities are solely responsible for the development and execution of communication strategy around de-energization events. However, electric investor-owned utilities, emergency responders, and local governments need to be seamlessly integrated when communicating de-energization notifications, with the goal that local governments

provide supplemental or secondary notifications in the near future given the primary or initial notification to the public provided by utilities.

- Consequences of de-energization should be treated in a similar manner as any other emergency that may result in loss of power, such as earthquakes, floods or non-utility caused fire events. The electric investor-owned utilities must avoid development of duplicative or contradictory messaging and notification systems to those already deployed by first responders unless circumstances necessitate duplicate or complementary messaging as part of a calculated and coordinated communications strategy.
- The electric investor-owned utilities must coordinate with California Governor's Office of Emergency Services and the California Department of Forestry and Fire Protection to engage in a statewide public education and outreach campaign. The campaign must effectively communicate, in advance of de-energization events, the immediate and increasing risk of catastrophic wildfires and how to prepare for them, the impacts of de-energization, how the public can prepare for and respond to a de-energization event, how to generate and distribute power safely during a de-energization event and what resources are available to the public during these events, what to do in an emergency, how to receive information alerts during a power shutoff, and who the public should expect to hear from and when.
- The electric investor-owned utilities must report on lessons learned from each de-energization event, including instances when de-energization protocols are initiated, but de-energization does not occur, in order to further refine de-energization practices. These reports should contain quantified metrics and results whenever possible to inform future standardization of de-energization practices and procedures. In addition, the utilities must work together to share information and develop best practices across California.

Timing of Notification

- Every effort must be made by the electric investor-owned utilities to provide notice of potential de-energization as early as the electric investor-owned utilities reasonably believe de-energization is likely. At a minimum, notification to public safety partners must occur when a utility activates its Emergency Operations Center in anticipation of a de-energization event or whenever a utility determines that de-energization is likely to occur, whichever happens first. In addition, the electric investor-owned utilities must provide notice when a decision to de-energize is actively contemplated, at the beginning of a de-energization event, when re-energization begins and when re-energization is complete. The electric investor-owned utilities should, whenever possible, adhere to the following notification timeline:
    - 48-72 hours in advance of de-energization: notification of public safety partners/priority notification entities
    - 24-48 hours in advance of de-energization: notification of all other affected customers and stakeholders
    - 1-4 hours in advance of de-energization: notification of all affected customers
    - When de-energization is initiated
    - 4-8 hours in advance of when re-energization begins

- 1-4 hours after re-energization is complete

Who Should Be Responsible for Notification?

- The electric investor-owned utilities, as the entity with the most knowledge of and jurisdiction to call a de-energization event, retain ultimate responsibility and accountability for the communication strategy, communication tactics and notification in advance of, during and after a de-energization event. However, the electric investor-owned utilities should immediately begin working with the California Governor's Office of Emergency Services and local governments to develop their notification programs such that, wherever possible, the utilities' notification processes integrate into the Standardized Emergency Management System Framework, with the goal that local governments provide supplemental or secondary notification in the near future based upon pre-designed templates and scripts developed by the utilities in coordination with relevant state and local agencies.

How Should Different Customer Groups Be Identified?
First/Emergency Responders/Public Safety Partners

- To ensure accuracy of contacts, the electric investor-owned utilities are required to update lists each quarter and conduct communication exercises prior to wildfire season to confirm their ability to rapidly disseminate information. The electric investor-owned utilities should work with points of contact and manage processes to proactively update information in the event of a change, beyond the annual update required of the utilities.

Critical Facilities and Infrastructure

- To ensure accuracy of contacts, the electric investor-owned utilities are required to update critical facility and critical infrastructure lists quarterly. The electric investor-owned utilities should actively manage a database to ensure points of contact are updated as close to real-time as possible in the event of a change, beyond the quarterly update required of the utilities. The electric investor-owned utilities should prioritize identification of appropriate contacts within Tier 3 and 2 high fire threat districts, followed by adjacent jurisdictions that may be impacted in the event of de-energization.
- The electric investor-owned utilities must, pursuant to Resolution ESRB-8, and in advance of the wildfire season, partner with critical facilities and critical infrastructure to assess the ability of each critical facility to maintain operations during de-energization events of varying lengths. The electric investor-owned utilities must help critical facilities and critical infrastructure assess the need for backup generation and determine whether additional equipment is needed, including providing generators to facilities or infrastructure that are not well prepared for a power shut off. Advance education and preparation of critical facilities is imperative to ensure that public safety is preserved during a de-energization event. These efforts

need to be particularly targeted towards low-income communities where the cost of generators and other equipment to manage during de-energization events is a greater barrier to access.

Access and Functional Needs Populations

- The electric investor-owned utilities must use all available means to identify access and functional needs populations. Information at the utilities' disposal may include, but is not limited to, customers on medical baseline, California Alternative Rate for Energy Program and Family Electric Assistance Program tariffs. In advance of the 2019 wildfire season, the electric investor-owned utilities should seek to identify and expand registration under their medical baseline tariffs.
- In the spirit of shared responsibility, the electric investor-owned utilities should partner with local governments and agencies to encourage identification of access and functional needs populations through those agencies. Recognizing privacy concerns, the Commission does not require the electric investor-owned utilities mandate participation of individuals or organizations serving functional needs populations; rather, the Commission encourages that, through local agency partnerships, the electric investor-owned utilities and local jurisdictions can together develop a comprehensive list of individuals that voluntarily opt-in for inclusion on a de-energization contact list. The organizations and individuals included on this voluntary list should receive up front education and outreach before and communication during a de-energization event in formats appropriate to individual access and functional needs populations.

What Information Should be Included in Notifications in Advance of and Directly Preceding a De-Energization Event?

Advanced Outreach and Education

- With the goal of having a common understanding of situational awareness among public safety partners throughout California, each electric investor-owned utility must clearly measure, define, report and communicate thresholds for strong wind events as well as the conditions that define "an extreme fire hazard" (humidity, fuel dryness, temperature) that the electric investor-owned utility evaluates in considering whether to de-energize. These inter-dependent thresholds may vary for different jurisdictions and topographies; however, the information must be provided to and be readily available to public safety partners. The electric investor-owned utilities are afforded discretion to evaluate real-time and on-the-ground information in determining whether to de-energize; adoption of thresholds is not determinative of de-energization. However, the methodology for determining when to de-energize must be based upon public safety, science and environmental factors (not on the relative financial costs of de-energization to an electric investor-owned utility).

IV. Conclusion

I greatly appreciate the opportunity to participate in this important proceeding. I hope that as a wildfire-survivor and resident, I can bring some "ground truth" to the implications of this proposed decision and to the overall safety of my family, friends, neighbors and fellow wildfire survivors (i.e. ratepayers) as it relates to this proceeding. Unfortunately, the manner in which Electric Investor-Owned Utilities have over the past few years mismanaged wildfire mitigation tactics and deflected accountability to "external factors" does not leave a lot of trust among residents.

How the CPUC moves forward to enable the IOUs to regain trust through de-energization events is paramount to safety and security of residents as we move forward. There are few who would disagree that we are past the point where general guidelines will suffice. Unfortunately, this proposed decision is specific enough to seem like a plan but too general to provide a real enforceable regulatory framework. We cannot regulate without specific roles and responsibilities articulated and we cannot expect accountability when there is no mention of this anywhere in the proposed decision.

Indeed, the most definitive statement of responsibility in the PD seems to rest on the shoulder of citizens. The statement "A statewide education campaign will allow citizens to prepare for and obtain information during a prolonged loss of power" seems to be very certain without caveats or loopholes. Doesn't citizen preparedness depend on the effectiveness and the results of that campaign? In contrast, where IOUs are expected to "prepare" and "execute" there is a lot of real estate provided in the proposed decision about how there are "shared responsibilities" and how "regional variability", external execution risks and other factors may impede their ability and make it difficult for the CPUC to provide a regulatory framework that sets standards across IOUs.

Again, we are past-the-point where general regulatory guidelines will suffice to ensure public safety. The first recommendation for the IOU Wildfire Mitigation Plans in Governor Newsom's Strike Force Report (pages 11-12) calls for "specific performance-based risk mitigation metrics that are independently and scientifically verified" and "an auditing system tied to financial incentives". This proposed decision does not include anything that approaches this. We still leave too much discretion to the IOUs for how and when to de-

energize leaving the bulk of the responsibilities in the hands of residents. Simply put, the current regulatory framework shifts responsibility for electric generation and distribution from IOUs (the experts) into the hands of residents (amateurs like me) when the risks are greatest and without specific standards for how this transfer will occur and without measurable standards for how we will communicate these responsibilities to citizens. I encourage the Commission to strongly consider these inherent implications within the proposed decision.

Dated:

May 16, 2019

Respectfully submitted,

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COMMENTS OF WILLIAM B. ABRAMS IN RESPONSE TO THE ORDER INSTITUTING RULEMAKING TO EXAMINE UTILITY DE-ENERGIZATION OF POWER LINES IN DANGEROUS CONDITIONS (PHASE 1)

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March 25, 2019

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In accordance with Rule 6.2 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure, William B. Abrams submits comments on the Order Instituting Rulemaking ("OIR") to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.

William B. Abrams appreciates the opportunity to participate in this important rulemaking proceeding. The comments below address the proposed scope, schedule and procedures in Phase 1 of this proceeding.

Introduction

As a California resident and fire-survivor, I appreciate the consideration of "de-energization" aka "Public Safety Power Shutoff (PSPS)" as one tactic to address the growing risks associated with utility caused wildfires. However, given these euphemistic ways to refer to shutting off the power I think we should be clear about what this really is from a customer/resident perspective. Here are some facts regarding this tactic that we should keep in mind:

- **Transfer of Responsibility** – This PSPS is a transfer of electric generation and distribution responsibilities to residents
- **Amateur Managed Power** - We are shifting the responsibility of power generation and distribution from the "experts" (i.e. the IOUs) to the "amateurs" (i.e. residents like me) when it is the hardest to do safely (red flag conditions, dry fuel, etc.)
- **Current/Future State** – It is clear that we are facing increased risks of IOU ignited and propagated wildfires and this shut-off tactic of "last resort" will be more common and a growing part of the "new normal" until the deployment of other safety measures are treated with increased resources and greater urgency.

Given these facts, we want to ensure that the IOUs efficiently and effectively manage these PSPS events balancing wildfire risk mitigation and the needs of customers to manage their lives through these de-energization time periods. The following phase 1 recommendations are to further these objectives and are in response to the provided staff proposal:

1. Updates to Resolution ESRB-8:

a. What, if any, updates or modifications should be made to Resolution ESRB-8 to ensure that, should de-energization become necessary during the 2019 wildfire season, de-energization is undertaken as efficiently and safely as possible?

In order to judge whether any particular de-energization action is "reasonable" there needs to be common standards across IOUs for evaluating the environmental conditions associated with de-energization decisons. Specifically, this IOU process for determining whether or not PSPS is needed must be (1) measurable across IOUs, (2) transparent to the public and (3) regulatable by the CPUC. If these three criteria are not met, we will not be

able to establish a baseline and we will not have a reliable de-energization process. I ask that this rulemaking include in the phase 1 of this scope an evaluation of whether these criteria have been sufficiently met.

Specifically, the measures of the primary environmental factors determining the need for de-energization as expressed by the IOUs need to be standardized (wind, humidity, fuel dryness and temperature). There are scientific measurement standards for each of these criteria which need to be articulated as part of the IOU de-energization plans. Inter-dependent thresholds need to be set for how these de-energization factors are weighed in IOU decision making. If initial thresholds are set based upon these measurement standards, we will have a strong baseline for future refinement. If these standards are not set, we will have ambiguous, unmanageable practices. The business adage "you cannot manage what you cannot measure" needs to be the lens by which the Commission evaluates these de-energization plans within this rulemaking.

I would recommend the Commission urge standardization of these measures across utilities so they can be comparatively evaluated to secure a baseline standard. Examples of these scales include the Beaufort Wind Force Scale or knots for wind, dew-point temperature (TDP, TFP) for humidity and Temperature Vegetation Dryness (TVMDI) for fuel dryness. Interdependent thresholds can be set upon standard scales such as these for any particular geography to start to get to some uniform standards for evaluating the need for de-energization by an IOU.

2. Notification and Communication to the Public: (including vulnerable populations), local governments, critical facilities, and emergency/first responders;

a. What are the best ways to notify the aforementioned parties of a planned de-energization event and when power will be restored in the event of de-energization?

There are two communication strategies that need to be defined by the IOUs as part of this phase 1. One communication strategy should be developed to educate the public on what to do when de-energization occurs. This "how to" public-awareness campaign should instruct customers on how to manage electricity and activities of daily living (ADL) safely during these events. The other communication strategy should direct customer alerts in the hours prior to and after a specific de-energization event. Of course, the effectiveness of the former communications strategy is critical to the later mentioned communications. Recommended approaches to inform these two strategies are outlined below:

Public Education Campaign - I recommend that the communication tactics for this "how to" campaign not be set by the Commission or within this rulemaking. It should not be important to the Commission the manner in which customers are educated on safety during public-safety-power shutoffs (PSPS). If there is a billboard, TV spot, radio notice, bill-insert, direct-mailer, email or some other communication tactic it only matters in as much as it effectively alerts and educates the public. The degree to which customers are aware and educated is what the Commission should set as a standard and hold IOUs to account. This outcome-orientation rather than process-orientation is the correct manner to drive accountability across the IOUs.

This measurable results-orientation is what drives all good communication strategies. Tools like focus groups and customer surveys are used to gauge this public awareness in all other industries where competition drives success and needs to be utilized here. In this way, we could understand and hold IOUs accountable for the effectiveness of their communications regardless of the tactics. A simple 5-10 question survey could be developed and standardized across the utilities to gauge customer awareness. I would suggest administering 2 surveys (1 pre and 1 post wildfire season).

This survey could be designed and administrated either through a collaboration across the IOUs and/or by an independent communications firm. These survey tools could be modified to address specific customer segments (general public, people with disabilities, English as Second Language (ESL)/Limited English Proficiency Populations, low-income, etc.). Again, this type of customer segmentation is business-as-usual within private and nonprofit sectors and needs to be incorporated here. If this cannot be accomplished in the scope of this rulemaking, I recommend that another rulemaking be set within the next 3 months to accomplish this critical goal.

These surveys, when properly administered, could set quantifiable baseline and annual targets for critical PSPS communications. As an example, if 10% of each IOU customer base were randomly selected, surveyed and scored 30% for "basic understanding" then perhaps the CPUC would set a standard of 5% increase in this "basic understanding" year-over-year (YOY). Similarly, other metrics critical to customer safety during PSPS events (safe use of personal power generation, emergency resource awareness, homeowner responsibilities during re-energization, etc.) could have a baseline measure set.

Again, the Commission should not care if IOUs knock on doors, post flyers or run a Super Bowl ad to communicate these critical public awareness messages. What should matter is the result. Are customers aware of how to manage power safely during a PSPS event?

Alerts Prior To and Post De-Energization Events – The current tactics being leveraged by IOUs to provide these communications are not designed nor should they be expected to provide this type of alerting. Asking Electric Utilities to run and place pamphlets on doors will not accomplish this alert goal. Moreover, reliance upon the postal service for timeliness of message delivery before a wildfire or PSPS event is not sufficient. Only, communication tactics designed for emergency alert and warning are positioned to

provide these types of PSPS communications. I recommend that a mutual-assistance agreement be formed to administer a competitive bidding process, evaluate existing products and deploy an alert and warning system that can communicate these de-energization events. There are low-cost, telemetry-based alert/warning devices and systems that could be leveraged and mounted on IOU owned poles to accomplish this. These systems can be customized to send notifications to residents in particular geographies and can also serve the dual-purpose of alert/warning when a utility caused wildfire occurs.

Moreover, these alert technologies have advanced in such a way where they do not resemble the sirens of old. Low-cost devices ping each other silently for testing, provide granular-level geographic alerting and have low-profile designs that would not impede electrical component performance or lineman safety for operation or maintenance. Selfishly and given that my family and I ran through flames in the wildfires of October 2017, I find this dual-purpose technology appealing. One might call this type of solution a "win-win" for both IOUs and the residents of the State of California.

Now, I understand that this may seem too bold or too ambitious for some parties. However, this is not the time for half-measures nor a time to retrofit misaligned communication tactics to these types of time-sensitive public safety alerts. How many IOU caused wildfires will it take to prompt these urgent actions? I am requesting that contracting guidelines and a Request for Proposals (RFP) be established to seek competitive bids for this type of solution. Furthermore, I request that this type of collaboration and RFP requirement be set within the ESRB. I am confident that the Commission and the IOUs will find an effective, low-cost solution among the many alert/warning technology and system-integration companies. Given the right amount of urgent leadership, such a solution could be developed and implemented within the next two years.

i. How far in advance (and in what order of priority) should the aforementioned parties be notified of an upcoming de-energization event?

I agree with the "alert", "warning" and "notification" definitions set out in the staff proposal associated with this rulemaking. That said, only "notifications" can realistically be accomplished with current IOU communication vehicles/tactics given the emergency conditions that lead to PSPS events. Of course, the earlier the IOUs notify local agencies, critical facilities and first responders the better and there should be measurable standards regarding these communications. Targeting pre-wildfire-season (March-April) and post-wildfire-season (November-December) for public notifications and education around how to maintain safety and stability during PSPS events would be reasonable timeframes.

ii. What information should be conveyed about an upcoming de-energization event?

In addition to the information articulated in the staff proposal, I recommend that the following information be conveyed about de-energization:

- **Personal Power Generation** – Instructions on general safe use of personal generators, battery backup, etc. during PSPS events
- **Personal Power Distribution** – Instructions on safe use of power cords and other ways to distribute power during PSPS events
- **Mobility** – Instructions for safe driving and general traffic/safety supports during PSPS events
- **Emergency Contact Information** – Emergency contact information should be provided for transportation, medical, fire, police and other support services

These topics should fall well within the scope of IOU communications around de-energization. The assumption that power generation and distribution within the hands of

citizens during red-flag warning days is better suited than in the hands of our utility companies may be true only if residents are well-educated on how to manage power when responsibility for that power is suddenly transferred to them by the IOUs. I certainly consider activities like running extension cords through dry grass, firing up generators and grilling the contents of refrigerators outdoors for fear of spoilage not necessarily a recipe for safer communities. Simply put, without proper alerts and education by IOUs before PSPS events, residents will not be positioned to manage safe power generation and distribution.

iii. Who should be responsible for notifying affected customers/populations? Should the utilities be solely responsible, or should other parties such as local governments have a responsibility in communicating these events and for notifying affected customers/populations? If not, who should be responsible for notification?

I agree with the staff proposal and position that "IOUs should retain the responsibility for notifying impacted jurisdictions of deenergization events". Indeed, the IOUs should continue to be solely responsible for these communications. This should be in totality including operational, managerial and financial responsibility. However, as I stated earlier the "how" these communications occur and through which partners (government, nonprofit, private) should similarly be the responsibility of the IOUs. The CPUC should facilitate these agreements and engagements to the extent possible but the responsibility should continue to rest solely on our electric utilities.

As I will describe in the next section, the capabilities of California State and local agencies around alert and warning is disjointed and uneven at best. Any additional responsibilities placed on these already under-resourced and overwhelmed systems should be avoided and definitely should not be incorporated as part of this rulemaking.

- **Target Customers Requiring Variations in Communication Mode/Vehicle** (visual, linguistic, spatial, aural, gestural) – Certain customers will require differences in communications vehicle (exp. auditory communications for the deaf, different language, etc.) to understand the communication content.
- **Target Customers Requiring Supplemental Content** - Individuals that require supplemental communication direction for these de-energization events (transportation for individuals with mobility challenges, etc.).

The populations listed in the staffing proposal and those additionally listed by other parties need to be considered based upon this different application of these communication vehicles. For example, someone who may land in the "elderly" category and uses a walker and an individual who may be categorized as someone with a "physical disability" both likely need a supplemental communication around transportation but the "mode" of that communication is likely the same. However, someone who is deaf is likely to need the same "content" as the general public but will likely need that communication in a different "mode" (braille, relay service, etc.). Through segmenting the disproportionately vulnerable populations this way, we can ensure the variations in the communication vehicles match the needs of the customers in content and in mode. This in turn will help to ensure we have a safer and more informed public before, during and after these de-energization events.

i. Is a list of Medical Baseline customers sufficient, and if not, how should the utilities identify vulnerable populations?

I agree with the staff proposal relative to the need for further analysis in phase 2 regarding ways to reach medical baseline customers. However, I would suggest in this phase 1 we allow nonprofits serving disproportionately vulnerable populations an open enrollment period so they can opt-in for communications regarding de-energization in

alternative formats as described above (language-based, supplemental transportation information, etc.) until we get to a more targeted approach in phase 2 of this rulemaking.

c. How should critical facilities be defined and identified?

In addition to those critical facilities listed in the staff proposal, I suggest we consider adding Flammable and Combustible Material Storage Facilities to this list unless they are considered in some other area of this rulemaking. The implications of de-energization for these facilities (Class 1A, 1B, 1C flammable liquids, Class 2, 3A, 3B combustible liquids, etc.) needs to be in scope. For obvious reasons, the security of these sites particularly on days when wildfire risks are heightened is critical for public safety.

d. How should first responders/emergency responders be defined and identified?

The definition of "first responder" provided in the staff proposal is good start. However, I would expand this to individual decision makers within the private and nonprofit sector that manage the at-risk infrastructure including the Flammable and Combustible Material Storage Facilities mentioned above. There may need to be a whole set of other communications around de-energization to this sub-set of stakeholders.

i. Should water utilities and communication companies be defined as first responders?

The evaluation of this in the staff proposal seems like a reasonable assessment. I have nothing additional to add at this time.

3. **What structures and practices should be in place to maximize coordination between utilities and first responders/local governments?**

The structures and practices for this coordination should be a very specific set of protocols with associated communication templates and tools. There should be process flows and related decision trees required to be submitted by the IOUs with cycle-time articulated for each step of those processes. These tools should be required for this phase 1 of the rulemaking. In phase 2 these process maps and protocols can be refined by coordination and collaboration with all parties, however the baseline needs to be in-place before this wildfire season. The general coordination described in the staff proposal and ESRB-8 is insufficient and in no way conveys the criticality of this coordination to ensure a safer de-energization process. If there are internal IOU documents that describe these processes, protocols and communication templates, they should be provided to parties for review and consideration as part of this phase 1.

a. **Should the utilities be required to embed liaison officers (who are empowered to make decisions on behalf of the utility) in emergency operations centers carried out under state and local plans consistent with SEMs?**

Yes, having liaison officers in the Emergency Operations Center (EOC) as described in the staff proposal seems appropriate. However, just having their presence without specific tasks and responsibilities is insufficient and could cause a bottleneck rather than a helpful resource if these responsibilities are not sufficiently defined. As part of this phase 1, IOUs in collaboration with decision makers at the EOCs should be required to articulate the specific responsibilities of these liaisons to ensure effective and efficient emergency coordination.