BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018).	Rulemaking 18-10-007 Filed October 25, 2018

WILLIAM B. ABRAMS COMMENTS ON THE SAFETY CULTURE ASSESSMENT
PROCESS AND THE WILDFIRE MITIGATION PLAN REQUIRMENTS

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In accordance with Rule 14.3 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure, William B. Abrams submits these comments in response to the Wildfire Safety Division's staff proposals and associated workshops.

SUBJECT INDEX

I. Introduction

This effort to close gaps in the Wildfire Mitigation Plan (WMP) process and to ensure that data is consistently reported across plans is a critically important effort. Without consistency we will not be able to replicate successful outcomes and will not be able to work towards a continual improvement process (CIP) which is the overarching goal for the California Public Utilities Commission (CPUC) and the Wildfire Safety Division (WSD). The workshops held during this proceeding were informative, provided a strong basis for revisions and highlighted the different interpretations of plan objectives across Investor Owned Utilities (IOUs). The wildfire risks are increasing and we must rely upon a collaborative approach among stakeholders to keep up these growing threats. It is in this spirit of collaboration and cooperation that I provide the following comments to help improve the safety culture assessment process and wildfire mitigation plan requirements.

II. Recommendations for Developing a Safety Culture Assessment Process

A. Scope and Vision

The vision of the WSD and the interpretation of culture as "how work gets done in an organization" is a helpful starting point to develop the right vision and scope for this proceeding. However, it will be difficult for the WSD to limit the assessment to "employees who conduct activities related to wildfire safety."[1] If a safety culture is to permeate an organization, it will need to be prioritized throughout an organization. Therefore, limiting the scope to just those referenced in the Wildfire Mitigation Plan (WMP) process unnecessarily limits the effectiveness of the approach. As an example, if employees that work within the finance department are deemed as out of scope we may not be able to understand the relationship between cost allocation, asset optimization and the safety of the utility. That said, this vision set out by the

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[1] WSD Draft Recommendations for Developing a Safety Culture Assessment Process, August, 12, 2020 (pg. 6)

WSD to ensure that the safety culture assessment is data-driven and fosters continuous improvement is exactly the right path.

B. Proposed Approach to Assessing Safety Culture

In keeping with the vision laid out in the staff report, I recommend looking at this effort as the creation of a Wildfire Safety Division Quality Assurance Program. Through this type of Total Quality Management (TQM) lens, we can start to build the types of assessment tools (quality controls) and quality assurance processes that can be standardized and scalable across the IOUs. This focus would allow the WSD to leverage existing QA methodology rather than reinventing definitions, processes and tools. As an example, the staff report describes their primary goal is to "assess elements related to wildfire safety." These "elements" if looked at through a QA lens would be interpreted as "quality attributes" which have very specific definitional standards (distinctive, measurable, actionable, etc.). Here is an example of how the WSD might think about quality attributes in-line with the objectives set in the staff report:

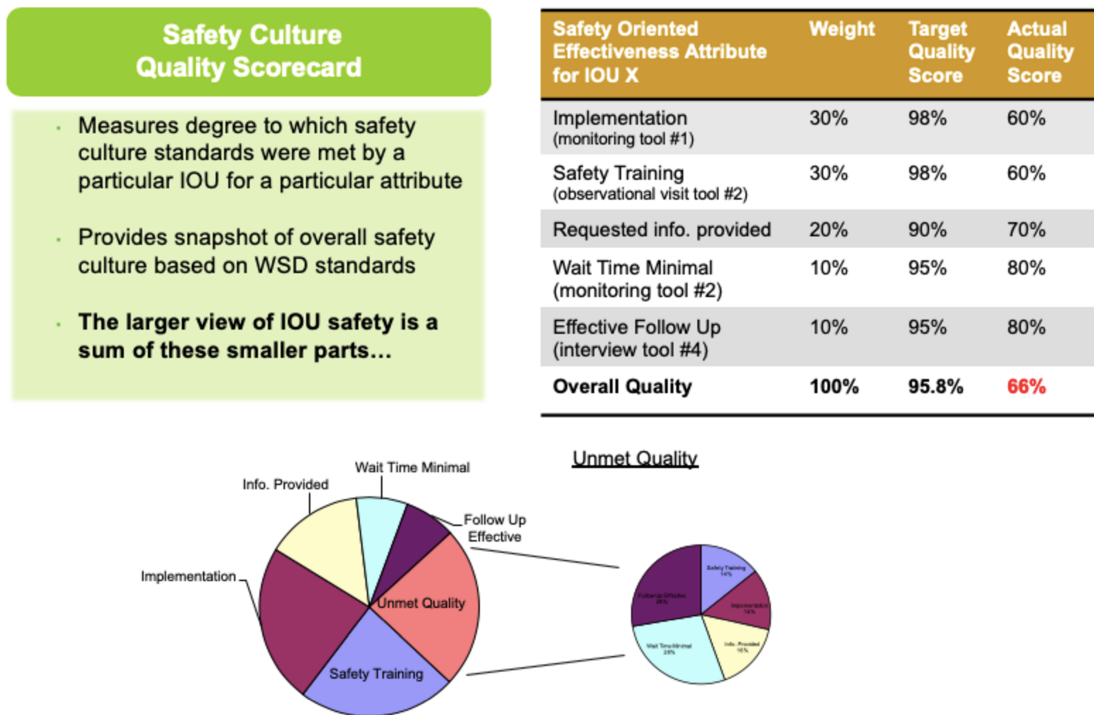## Examples of Safety Culture QA "attributes"

Focus cost-effective resource allocation to improve quality and enable Investor Owned Utilities (IOUs) to achieve safety outcomes (fewer wildfire ignitions, well-managed/infrequent PSPS, etc.) in a manner consistent with PUC Section 8389 (d)(4)

CLEAR EXPECTATIONS	EFFECTIVENESS	EFFICIENCY	PROFESSIONALISM
• Do employees and management understand safety requirements? • Are the safety measurements articulated clearly to the commission and ratepayers? • Is there a clear feedback loop for employees and ratepayers?	• Is there a focused wildfire safety strategy that leverages and builds off of existing tools within the IOU? • Does the IOU have a dynamic continual improvement process (CIP)? • Does employee training focus on safety outcomes?	• Does IOU resource allocation prioritize and maximize safety outcomes? • Does the IOU affectively measure safety processes to ensure high quality? • Does the IOU measure and verify response times, repair times, etc.?	• Has the IOU identified and successfully incorporated safety best-practices from other IOUs and outside the industry? • Are management expectations of safety aligned with those of employees and ratepayers?

*Figure A: Example of Safety Culture QA Attributes*

Once we start to think about safety culture assessment in these QA terms then industry standards for measurement, monitoring and reporting would directly follow in keeping with the staff vision. The proposed approach references "interviews", "observational visits" and "monitoring" as some of the potential tools for ensuring a safety culture. If these are looked at through a quality control (QC) lens the "potential areas of questions" described in the staff report would be much more targeted and actionable.[2] As an example, consider how the survey questions described in the staff report all reference how employees "feel" or what employees "believe." This type of emotional framing does not align with the WSD definition of culture which is "HOW work gets done in an organization" and may not provide a real measure of safety culture or help to drive an actionable safety strategy. However, if the WSD insists that these tools adhere to QA methodology, the quality controls would provide actionable information and could provide safety culture scorecards for a specific IOU and provide the ability of IOUs and the WSD to understand and implement best practices. Consider the following examples:

IOU Safety Culture Scorecard Example: Effectiveness

Safety Culture Quality Scorecard	Safety Oriented Effectiveness Attribute for IOU X	Weight	Target Quality Score	Actual Quality Score
· Measures degree to which safety culture standards were met by a particular IOU for a particular attribute	Implementation (monitoring tool #1)	30%	98%	60%
	Safety Training (observational visit tool #2)	30%	98%	60%
· Provides snapshot of overall safety culture based on WSD standards	Requested info. provided	20%	90%	70%
	Wait Time Minimal (monitoring tool #2)	10%	95%	80%
· **The larger view of IOU safety is a sum of these smaller parts…**	Effective Follow Up (interview tool #4)	10%	95%	80%
	Overall Quality	**100%**	**95.8%**	**66%**

Figure B: Example of Safety Culture Scoring by Attribute

[2] WSD Draft Recommendations for Developing a Safety Culture Assessment Process, August, 12, 2020 (pg. 10)
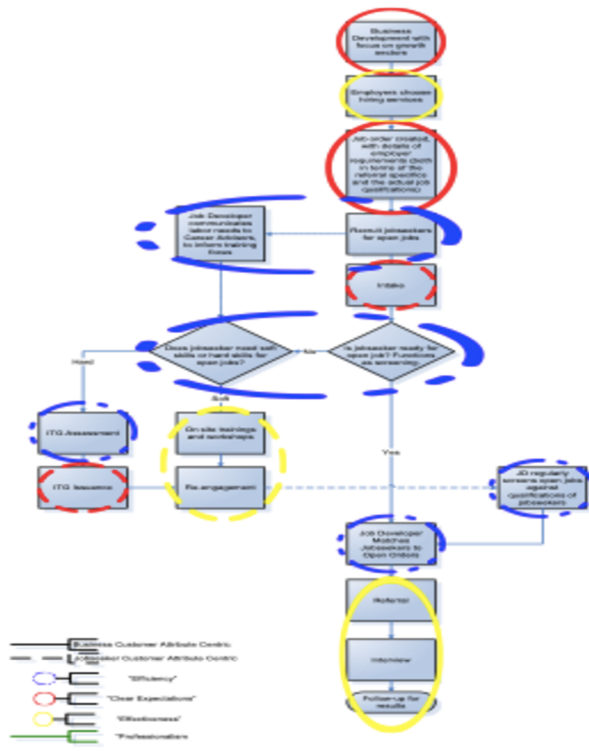
Figure C: Map Risk/Quality Attributes to Business Processes and Organizational Structures

These types of tools if leveraged in the WMPs, would also support the newly creating monitoring functions of the Wildfire Safety Division and naturally incorporate metrics like those expressed through the S-MAP and RAMP proceedings. This mapping of risk mitigation attributes to business processes would give the Wildfires Safety Division critical tools for general oversight and monitoring activities. Equally important, these types of QC tools would provide critical insight into how safety cultures compare across IOUs in a standardized manner. If there is consistency across the WMPs and a movement towards quality controls the following types of scorecards could be easily produced to drive accountability and regulatory oversight:

Quality Scorecard Example: Overall Safety Culture

IOU X Safety Culture	Weight	Safety Culture Measurement		Actual Quality Score
Training	5%	66%		🟡
Communications	10%	35%		🟡
Effectiveness	5%	72%		🟢
Efficiency	10%	86%		🟢
Best Practices	10%	62%		🔴
Safety Board	5%	18%		🟡
Risk Prediction	20%	27%		🟢
Culture Metrics	25%	21%		🔴
Reporting	10%	41%		🔴
Overall IOU Safety Culture Score	100%	40%		🔴

Safety Culture Scorecard

- The scorecard represents the combined quality of various safety-oriented functions across the IOU

- Gives WSD and commission leading indicators of IOU Safety Culture before negative safety related implications

- Provides ongoing tools to compare IOUs and leverage best practices

Figure D: Example of Safety Culture Scorecard by Utility

This type of quality assurance program would also enable the Wildfire Safety Division to set scoring thresholds relative to safety culture standards. I would recommend that the WSD leverage these types of thresholds and integrate them with scorecards related to other wildfire mitigation and PSPS standards. This phased and integrated approach should then be tied to IOU financial incentives and penalties. These safety metrics must be tied to bottom-line financial incentives for the IOUs if we are ever to have a consistent culture of safety across our statewide energy grid.

The proposed "Board of Directors Safety Committee" laid out in the staff report is an important step forward but we must remember that these corporate boards first and foremost have a financial responsibility to the shareholders. Through tying these safety culture scores to bottom line financials and investment structures, we would be able align investor interests with ratepayer and public interests relative to safety. This type of regulatory structure would have the added benefits of providing clearer management direction and a much more predictable investment profile as compared to the current post-incident (wildfire, PSPS, etc.) financial penalty structure.

III. Recommendations for Wildfire Mitigation Plan Requirements

A. Overview of WMP Recommendations

The proposed changes in the staff report are important upgrades to the Wildfire Mitigation Plan (WMP) requirements. The nine objectives for revising the WMP guidelines should provide some solid steps forward but still leave room for inconsistent reporting and don't go far enough to tie mitigation metrics to wildfire related expenditures. I encourage the Wildfire Safety Divisions to not lose sight of the primary metric of any mitigation plan which is the percent reduction of risk. Every task and tactic in the WMPs should have an associated risk reduction ratio (RRR) or it should not be in the IOU plan. Without this tie to measured risk reduction, we will not be able to understand if the activity metrics (percent complete, etc.) provided in the reports are heading in the right direction to meet our short-term or long-term safety objectives. In prior comments associated with this proceeding, I have provided methodologies and examples for how to ensure that measured risk reduction is a more central component of the plans so I will not dive into that here. Instead, I will suggest supplements to the proposed changes in the staff report and build from the strong start laid out by the CPUC and the Wildfire Safety Division.

B. Recommendations to Identify Roles and Responsibilities

I agree with the commission's emphasis on understanding clearly who will be responsible for setting goals, objectives and targets along with those who are responsible for plan execution is critical to drive accountability. Given that there are many different responsible parties inside and outside an organization for a particular metric or task, it may be helpful to breakdown roles and responsibilities into the following 5 categories:

- **Sponsor** – This would be the executive and/or senior manager who has ultimate responsibility for a set of initiatives but does not have direct responsibility at the project or task level. This individual is often considered the champion of the project and has the vision regarding potential outcomes.

- **Owner** – This would be the individual who has direct day-to-day ownership of setting and/or achieving a particular task or metric. They need to have a deep understanding regarding the sponsor's intent along with an intimate understanding of challenges regarding how tasks will be achieved.
- **Project Manager** – It is important particularly with new initiatives that discrete project management functions are identified. Project managers will understand timelines, milestones, dependencies and other key factors associated with achievement at the task or project-level.
- **Key Influencers** – There are often individuals within or outside an organization that do not have direct responsibility for a given task but provide advice or guidance regarding the risk strategy, communications, operations or other keys to successful risk mitigation.
- **Quality Assurance/Risk Management Professional(s)** – Given that these activities fall within a risk mitigation plan, there should be a specific individual identified who is tied to the goal or objective to ensure that the tasks are looked at through a quality and/or risk management lens. Tasks may be achieved but may or may not hit their desired goal to reduce risk and improve quality.

Through identifying these roles/responsibilities it will enable the WSD to have greater insight regarding who within the organization is responsible for different components of success. Additionally, if there is a breakdown in a particular objective then it will be easier for the commission to follow up and gain insight. As an example, if a particular initiative is delayed well beyond the target date, the project manager may have the most information regarding contingencies, obstacles and dependencies for completion. However, if the task is completed successfully but it does not achieve the desired risk reduction metric then following up with the QA or RM professional might be a prudent approach. The identification of these roles will also give the WSD a greater understanding of the degree to which objectives are ingrained across an organization or centralized to a particular department or division.

Another key to success for understanding the efficacy of the plans and best-practices will be to identify key influencers from outside a particular IOU and those that come from adjacent and/or complementary industries. As we have seen in recent years, utilities (often as a protective

measure to avoid liability) turn inward to solve problems and address risks which can limit insight and not allow corporations to understand transferrable solutions from outside their industry. When there are outside resources (consultants, analysts, system integrators, etc.) that successfully facilitate risk reduction it will be important for other IOUs and the commission to recognize their contributions and promote their services as a best-practice across other IOUs.

C. Risk Reduction as Primary Component of Wildfire Mitigation Plans

My overarching concern regarding the structure of the WMPs is that they remain focused on consequences of wildfires that are often beyond the direct control of the utilities and/or have little to do with wildfire risk mitigation. IOUs need to remain accountable for the consequences of their action (structure loss, death, financial losses, etc.) but after utilities cause an ignition they play an indirect supporting role to firefighters and other first responders. Yes, we should track response times of IOUs during fires and ensure the supportive role IOUs play post-ignition but that should not be the focus of the WMP reporting efforts. We have seen the real-world implications of this in the aftermath of the Kincade Fire in 2019. After the fires, PG&E engaged in a great degree of very public self-adulation because they did not cause deaths and had a much-reduced structure loss from the year prior. This is despite the fact that they actually caused more ignitions in 2019 than the year prior and that the amount of risk mitigation failures in 2019 leading to the Kincade fire may be even more substantial as compared to other fires. The self-reflection from the Kincade fire did not seem to come even after July when they were found liable and guilty of causing that fire.

I mention this to reinforce the fact that focusing on consequence reporting may distract from the primary focus of the plan to reduce risk. Post-ignition the metrics to track for a utility should be those that indicate how they respond to support fire-fighting resources during the fire and what steps they take after the fires are contained to repair and improve the infrastructure. After the fires of 2017, I was particularly concerned that mean time to restore (MTTR) seemed to be the only metric that was viewed as important. Post-wildfire there are opportunities to underground lines, install sectionalizing devices and generally improve safety which were missed in 2017. I

recommend that the wildfire mitigation plans incorporate metrics related to these activities which are often called "reactive" or "escalation controls" as demonstrated in the following:
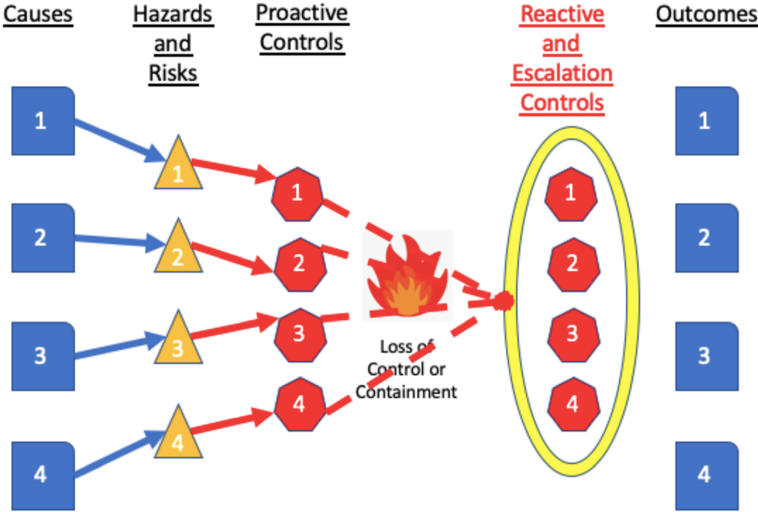
Figure D: Common Bowtie Methodology Highlighting Reactive/Escalation Controls

Indeed, these opportunities to reduce risks exist even when utilities do not cause the wildfires. Given the recent and ongoing lightning-caused wildfires in high fire threat districts (HFTD), all utilities need to be prepared to secure utility easements they were unable to get before the fires and address risks in these areas. How will the Wildfire Safety Division track how utilities have capitalized on these opportunities to reduce risk? These reactive and escalation controls need to be in the WMPs.

The Kincade Fire also highlights other cautionary notes for the next iterations of the WMPs which the WSD should take into consideration as they modify the requirements. The fact that this fire came at a time when PSPS events in the area were in effect demonstrates that we need to be careful not to disassociated power shutoffs as a mitigation tactic from the other parts of Wildfire Mitigation Plan. The manner in which a utility manages a PSPS event is inextricably linked to how they mitigate wildfires. If these power shutoffs are to be considered a mitigation measure of last resort, we must consider how the use of them as a tactic indicates failures in other areas of the mitigation plan.

Moreover, the fact that the Kincade fire was proven to be caused by the PG&E transmission infrastructure highlights that we must look at risk holistically and that PSPS tactics may in some ways add risks to other parts of the infrastructure particularly during the re-energization process. Although the Kincade fire is almost a year past, I still have not seen PG&E step forward to provide an analysis of how their infrastructure caused the fire. Are we to understand if jumpers are yet another component highly susceptible to cause wildfires? Did PG&E do an analysis of rigid vs. flexible jumpers to understand their relative contribution towards risk in different configurations? Will this instance inform when and how we shutoff transmission infrastructure? If the WSD separates PSPS events in the plan, we should be careful not to bifurcate all of the associated PSPS risks from the other mitigation tactics. The risks to and from PSPS events are associated with risks across the utility infrastructure and those passed along to ratepayers during power shutoffs.

D. **Integration of WMPs into broader Statewide Wildfire Mitigation Efforts**

There is huge gap and lack of connection between the Wildfire Mitigation Plans provided by the IOUs and other wildfire mitigation plans that stretch across California. There are a plethora of wildfire mitigation plans at the state and local level and they are all very disconnected from what we read in these WMPs. As good corporate citizens, it should be incumbent upon the utilities to ensure their efforts are fully integrated and supportive of these other plans. The Community Wildfire Protection Plans (CWPPs) are developed across the state by cities and counties along with Fire Safe Councils, Citizens Organized to Prepare for Emergencies (COPE programs) which are at the citywide or community-level. There needs to be recognition that we are in this together and that means coordination and collaboration. There is zero integration in the current WMPs and let there be no doubt that this lack of integration is a significant internal risk for wildfires. The local and statewide wildfire mitigation plans effect the degree to which the IOU mitigation plans can be affective and the converse of that is also true yet the integration is not prioritized by any of our utilities.

Additionally, residents across California understand this lack of strategic integration is causing our homeowner insurance rates to skyrocket and in some parts of the Wildland Urban Interface (WUI) it creates dramatic insurance scarcity. The California Department of Insurance has been actively working on these issues but there has been little to no cooperation with utilities. We must insist that this collaboration with local and statewide organizations be a prominent component of the WMPs with metrics to reinforce successful outcomes. If this type of strategic integration is accelerated, I am sure it will produce mutual and exponential benefits across the state. We cannot let "listening sessions" and vague descriptions of "outreach" described in the WMPs suffice as strategic integration.

IV. Conclusion

The proposed Safety Culture Assessment Process and the recommended changes to the Wildfire Mitigation Plans are strong steps forward if we lift the lens off the words and numbers on the plans themselves. Utility caused wildfires continue to ravage the state and the implications from the fires are far reaching. We must have a collective debrief after each incident and implement substantive corrective actions if we are to move forward in a way that recognizes the growing risks to our utility infrastructure and our communities. We cannot let the fear of liability and lack of accountability drive how utilities proceed through this process. We all have responsibilities to harden our homes, contribute towards resilient communities and adapt to our changing climate.

However, if we continue to permit siloed efforts from our IOUs and through our WMPs then we will not be successful. The utilities need to leverage best practices from each other, from adjacent industries and from the communities in which they provide services. Wildfires do not exist in a closed environment so we must insist on an integrated approach which is not currently represented in the Wildfire Mitigation Plans. This collaborative approach is not just practical. It must be recognized as a strategic imperative if we are to move forward and mitigate our collective wildfire and broader safety risks.

Dated:

August 26, 2020

Respectfully submitted,

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