



October 6, 2021

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**Subject: Office of Energy Infrastructure Safety Issuance of Pacific Gas and Electric Company's 2021 Safety Culture Assessment per Public Utilities Code Sections 8389(d)(4)**

Dear Ms. Allen:

Enclosed is the 2021 Safety Culture Assessment (SCA) report for Pacific Gas and Electric Company (PG&E) conducted by DEKRA on behalf of the Office of Energy Infrastructure Safety (Energy Safety) in fulfillment of Public Utilities Code Section 8389(d)(4). This is the first annual SCA under this statute and as such provides a baseline for future comparison. Energy Safety will use the SCA reports to assess safety culture outcomes over time and incorporate continuous learning into the SCA process.

The enclosed report includes as an attachment (at Section 8.1) PG&E's full written response to the draft report provided to PG&E on August 25, 2021, for factual review and correction. PG&E provided its written response and any relevant factual corrections on September 8, 2021. PG&E made no clarifications of fact in its response.

PG&E can satisfy the "good standing" requirement in Public Utilities Code Section 8389(e)(2) by agreeing to implement all of the findings (including recommendations for improvement) of its most recent SCA. This may be done by submitting a letter to this effect via E-Filing on the 2021 Safety Culture Assessments docket (Docket #2021-SCAs).<sup>1</sup>

Sincerely,

*Melissa Semcer*

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<sup>1</sup> The 2021 Safety Culture Assessments docket can be accessed at <https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2021-SCAs>.

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Service List for Docket #2021-SCAs

# SAFETY CULTURE ASSESSMENT



**PACIFIC GAS AND ELECTRIC COMPANY**  
**OCTOBER 2021**



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# 1. Executive Summary

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In 2019, California Assembly Bill 1054 added an annual safety culture assessment requirement to the Public Utilities Code. Public Utilities Code Section 8389(d)(4) requires the California Public Utilities Commission (Commission or CPUC), in consultation with the Wildfire Safety Division—as of July 1, 2021, now the Office of Energy Infrastructure Safety (Energy Safety), a new department under the California Natural Resources Agency—to develop a process for an annual Safety Culture Assessment for each electrical corporation. The annual Safety Culture Assessment process (approved by the Commission in 2020 in Resolution WSD-011) includes a workforce survey, a management self-assessment, submission of supporting documentation, and interviews. Energy Safety contracted with DEKRA Services, Inc., (DEKRA) to conduct the inaugural 2021 annual Safety Culture Assessment for each electrical corporation. The Safety Culture Assessments took place in May and June 2021. In the course of these assessments, the safety culture of Pacific Gas and Electric Company (PG&E) was assessed with respect to both personal and wildfire safety.

In 2020, PG&E began implementing a five-year 2025 Workforce Safety Strategy to improve personal, wildfire, and public safety. This included investments in systems and resources such as implementing a new safety management system, adding staff to the Corrective Actions Program, and engaging a third-party firm to conduct an external safety audit. Positive responses from employees on the Safety Culture Assessment workforce survey (in particular on questions related to following procedures to control wildfire hazards, comfort discussing wildfire hazards with leadership, and personal responsibility for the safety of self and others) suggest PG&E's efforts may be bearing fruit.

However, PG&E's self-assessment and supporting documentation submission, especially when compared to the submissions of other large electrical companies, provides no specific information that would give an outside reviewer confidence that (a) the strategy is well-formulated, (b) a specific plan with actions, milestones, responsible parties, and metrics is in place to execute the strategy, or (c) PG&E is sufficiently focused on the specific things it needs to improve. Furthermore, interviews with frontline employees and supervisors indicate that PG&E's 2025 Workforce Safety Strategy is hindered by a disjointed approach. The large size and siloed nature of PG&E represent a barrier to advancement of its safety culture, creating confusion among the frontline workforce, who in some cases express concern their voices are not being heard by upper management.

To drive consistent improvement in its safety culture throughout the organization, PG&E should act on the following recommendations:

1. Build leadership skills and ensure frontline supervisors are demonstrating those skills regularly in the field to improve the work environment for wildfire and personal safety.

2. Establish a governance structure to ensure effective implementation and tracking of the 2025 Workforce Safety Strategy.
3. Execute the strategy with active leadership by senior executives to ensure implementation.
4. Leverage the new safety management system to improve the flow of information up, down, and across the organization and provide a single mechanism for reporting and tracking wildfire concerns.
5. Increase engagement on the safety culture assessment within the workforce supporting wildfire mitigation initiatives.
6. Recognize and take action to mitigate the safety concerns posed by interactions with certain discontented members of the public.

Incorporating these recommendations into PG&E's efforts on improving safety culture will better position PG&E to realize its 2025 Workforce Safety Strategy and improved its safety culture and performance. A detailed narrative on the information collected through the workforce survey, management self-assessment, supporting documentation, and interviews, and the corresponding assessment and findings is provided below.

## 2. Overview

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Assembly Bill 1054, signed by Governor Newsom in July 2019, states that “[b]y December 1, 2020, and annually thereafter, the [California Public Utilities Commission], after consultation with the [Wildfire Safety Division], shall adopt and approve [...] [a] process for the division to conduct annual safety culture assessments for each electrical corporation” (Public Utilities Code Section 8389[d][4]).<sup>1</sup>

On November 30, 2021, the California Public utilities Commission (Commission or CPUC) issued its approval for a process for conducting annual safety culture assessments for each electrical corporation in Resolution WSD-011.<sup>2</sup> On January 22, 2021, the Wildfire Safety Division (WSD) at the CPUC published the Safety Culture Assessment (SCA) Requirements of Electrical Corporations (2021 Requirements).<sup>3</sup> The 2021 Requirements set out the key components of the SCA process: a workforce survey, a management self-assessment, submission of supporting documentation, and interviews. The 2021 Requirements also provide guidance as to which components apply to which electrical corporations.

The first SCA under Public Utilities Code Section 8389(d)(4) took place in May and June 2021 under the WSD’s direction. On July 1, 2021, the WSD transitioned to the Office of Energy Infrastructure Safety (Energy Safety), a new department under the California Natural Resources Agency. The first SCA reports are being issued under the direction of Energy Safety.<sup>4</sup>

The present SCA process is intended to be complementary to, and not a replacement for, ongoing work to improve safety culture at each electrical corporation. Energy Safety

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<sup>1</sup> The full text of Pub. Util. Section 8389 can be found here:

[https://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?sectionNum=8389.&lawCode=PUC](https://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=8389.&lawCode=PUC) (accessed July 16, 2021).

<sup>2</sup> Resolution WSD-011 “Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4), related to catastrophic wildfire caused by electrical corporations subject to the Commission’s regulatory authority,” dated November 19, 2020, and issued November 30, 2020: <https://energysafety.ca.gov/wp-content/uploads/docs/misc/docket/352490594.pdf> (accessed August 18, 2021). Also see the attachments to WSD-011, including Attachment 4 “Annual Safety Culture Assessment Process Proposal,” dated November 2020: <https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/docs/352460864.pdf> (accessed August 18, 2021).

<sup>3</sup> Safety Culture Assessment: Requirements of Electrical Corporations (published Jan. 22, 2021, accessed July 16, 2021): <https://energysafety.ca.gov/wp-content/uploads/docs/safety-culture-assessments/wsd-safety-culture-assessment-requirements-final-20210122.pdf>.

<sup>4</sup> Pursuant to Public Utilities Code Section 326(b), on July 1, 2021, the WSD transitioned from the CPUC into the Office of Energy Infrastructure Safety (Energy Safety) under the California Natural Resources Agency. Energy Safety “is the successor to” and “is vested with all of the duties, powers, and responsibilities of the Wildfire Safety Division” (Government Code Section 15475). WSD is used to describe the work of the WSD prior to July 1, 2021. Energy Safety is used to describe the work of Energy Safety beginning on July 1, 2021. Any references to WSD action post July 1, 2021, or to Energy Safety action prior to July 1, 2021, are inadvertent and should be interpreted as the actions of WSD or Energy Safety as appropriate.

seeks to develop a longitudinal view of safety culture across electrical corporations to identify best practices and relative gaps, along with an understanding of each electrical corporation's relative strengths and weaknesses. Ultimately, Energy Safety seeks to assess safety outcomes over time and incorporate continuous learning into the assessment process.<sup>5</sup>

Different components of the SCA target different parts of the electrical corporation's workforce. The workforce survey is intended to target electrical corporation employees (including frontline workers and supervisors) and contractors who are engaged in wildfire hazard mitigation activities, for example workers performing vegetation management or installing system hardening infrastructure.<sup>6</sup> The management self-assessment and supporting documentation components are intended to be completed by electrical corporation employees capable of: evaluating the corporation's presently employed practices and capabilities regarding safety, identifying a target level on the four-point scale for each question by the end of 2022 based on wildfire mitigation and safety initiatives planned in the coming year, and describing its plan to realize that target.<sup>7</sup> The interview component is intended to support the workforce survey and management self-assessment by asking additional questions of those who may have participated in those components for further context. The interviews are intended to help DEKRA interpret the results of the survey and self-assessment more accurately and better identify the priority areas that electrical corporations should focus on improving.<sup>8</sup>

## 2.1 Components of the SCA

As stated above, the key components of the SCA are a workforce survey, a management self-assessment, submission of supporting documentation, and interviews. Not every component applies to every electrical corporation. An overview of the SCA components, together with guidance on which electrical corporations must complete each SCA component, is below. Note that electrical corporations are categorized as follows for this purpose:

- **Large electrical corporations ("Large IOUs"<sup>9</sup>):** Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE).
- **Small and multi-jurisdictional electrical corporations ("SMJUs"<sup>10</sup>):** Liberty Utilities (CalPeco), PacifiCorp, Bear Valley Electric Service, Inc.
- **Independent transmission operators ("ITOs"):** Horizon West Transmission, Trans Bay Cable.

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<sup>5</sup> Safety Culture Assessment: Requirements of Electrical Corporations (2021), p. 3.

<sup>6</sup> Safety Culture Assessment: Requirements of Electrical Corporations (2021), p. 8.

<sup>7</sup> Safety Culture Assessment: Requirements of Electrical Corporations (2021), p. 14.

<sup>8</sup> Safety Culture Assessment: Requirements of Electrical Corporations (2021), p. 35.

<sup>9</sup> IOU: investor-owned utility.

<sup>10</sup> SMJUs: small and multi-jurisdictional utilities.

SCA requirements	Electrical corporations that must complete this requirement
Workforce survey	Large IOUs, SMJUs
Management self-assessment and plan summary	Large IOUs
Supporting documentation Section 1: Safety culture objectives	Large IOUs, SMJUs, ITOs
Supporting documentation Section 2: Summary of lessons learned	Large IOUs, SMJUs, ITOs
Supporting documentation Section 3: Summary plan for the following year	Large IOUs
Supporting documentation Section 4: Documentation to support responses to the management self-assessment	Large IOUs
Interviews	To be determined by Energy Safety upon review of submissions
Observational visits	To be determined by Energy Safety upon review of submissions

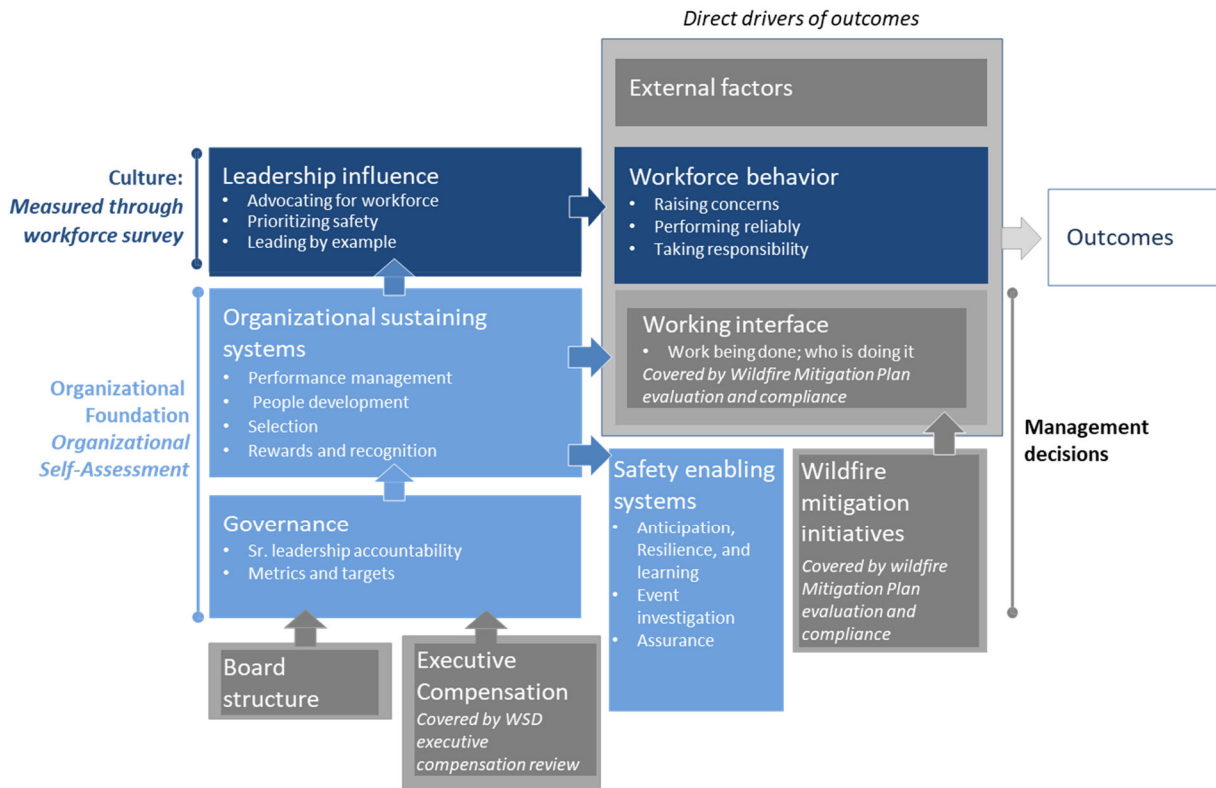
## 2.2 Framework for the SCA

The abovementioned components of the SCA (a workforce survey, a management self-assessment, submission of supporting documentation, and interviews) all inform the SCA findings. The SCA components are designed to be administered annually such that progress on the SCA can be measured over time. This is the inaugural assessment and will provide the baseline for evaluating progress in future years. Figure 1 below shows the elements of the organization's culture and foundation assessed by different components of the SCA.



The workforce survey component was designed to evaluate leadership’s influence on the culture and the impact that it has on worker behavior. This was supplemented with follow-up interviews of frontline employees and supervisors. The management self-assessment component was designed to evaluate the organizational sustaining and safety enabling systems that undergird and reinforce every safety culture. In addition, the self-assessment measured the electrical corporation’s approach to governance of its safety culture. The self-assessment was also supplemented by a focus group comprised of electrical corporation staff members who participated in the organization’s self-assessment responses.

**Figure 1. Framework for the Safety Culture Assessment**



Source: Resolution WSD-011 Attachment 4 “Annual Safety Culture Assessment Process Proposal” (2020), p. 9.

## 2.3 Survey and Interview Data Collected

The first stage of the SCA process is a workforce survey. The workforce survey is comprised of 30 statements rated on a five-point Likert scale<sup>11</sup> from Strongly Disagree to Strongly Agree. The 30 statements were originally sourced from DEKRA's validated safety culture instrument, called the Organizational Culture Diagnostic Instrument (OCDI).<sup>12</sup> The OCDI statements were then cut and modified to (a) reduce the size of the survey and (b) ensure the SCA survey questions covered aspects of wildfire hazard mitigation pertinent to the SCA. The survey statements are all framed in a positive light (e.g., "managers treat workers with respect"), so agreement with any statement can be considered an indication of better performance by the corporation. The statements were constructed in this way to avoid respondent misinterpretation or coding errors and to improve the interpretation of the survey results.<sup>13</sup>

The 30 workforce survey questions fell into one of three categories: wildfire, safety, and culture. Nine questions specifically asked about the electrical corporation's safety culture with regard to wildfire (e.g., "our management acts quickly to address wildfire hazards"), eleven questions specifically asked about personal safety (e.g., "pausing work for hazards and safety concerns is viewed positively"), and ten questions asked about workplace culture in general (e.g., "the company cares about my opinions").

DEKRA instructed the electrical corporation to share the survey with all classifications of employees directly involved in wildfire mitigation. Based on that instruction, the electrical corporation selected the classifications of employees that would receive the survey.

DEKRA (via PG&E) administered the workforce survey using electronic surveys. The goal was for all levels of PG&E employees and contractors to have ample opportunity to complete the survey. PG&E distributed the survey electronically on May 17, 2021. Participants had 15 working days to respond (the survey closed on June 4, 2021). A total of 1,572 employees responded to the survey out of 7,800 employees working on wildfire mitigation, resulting in a response rate of 20 percent. In addition, survey responses were received from 165 PG&E contractor employees out of an estimated base of 9,000 contractor employees, a response rate of 1.8 percent. Because of PG&E's large number of contractors, DEKRA provided guidance to PG&E to allow contractors to

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<sup>11</sup> A Likert scale is a rating system commonly used in questionnaires and survey research to measure people's attitudes, perceptions, and opinions. For more information, see:

<https://www.questionpro.com/blog/what-is-likert-scale/> (accessed July 28, 2021).

<sup>12</sup> For more information about the OCDI see: <https://www.dekra.us/en/organizational-safety-reliability/ocdi/> (accessed July 28, 2021).

<sup>13</sup> See the following research article evaluating the effects of using positively and negatively worded survey statements: Sauro and Lewis (May 2011), "When Designing Usability Questionnaires, Does It Hurt to Be Positive?" Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, [https://measuringu.com/wp-content/uploads/2017/07/sauro\\_lewisCHI2011.pdf](https://measuringu.com/wp-content/uploads/2017/07/sauro_lewisCHI2011.pdf) (accessed August 23, 2021).

sample from their employee populations who predominantly work in PG&E territory on wildfire mitigation activities. The final number of contractor employees receiving the survey could not be determined because the recipients were determined by the contractors and the contractors did not provide DEKRA with the total number of their employees receiving the survey. The workforce survey planning meeting for this assessment focused primarily on electrical corporation demographics, administration details, and the survey launch timeline. Planning meetings for subsequent assessments will need to address contractor outreach more formally.

The response rate among PG&E employees was low relative to the response rate of the other large electrical corporations. PG&E can employ a number of strategies to improve contractor response rate such as setting targets, providing communications materials, and conducting regular reminders and follow-up. In addition, PG&E should be more direct with requiring contractors to report the number of their employees invited to participate in the survey so that a response rate can be calculated.

Following administration of the workforce survey, three groups of PG&E employees involved in wildfire mitigation were interviewed on June 17, 2021. Due to time constraints and COVID-19 considerations, these interviews were conducted virtually over the phone using a teleconference line and a virtual meeting platform. The purpose of these group interviews was to better understand how frontline workers and supervisors view the organization's culture. The findings from these interviews provided context for the data from the survey. DEKRA asked PG&E to invite relevant workers to participate in the calls. DEKRA instructed PG&E to identify workers from departments that play a direct role in wildfire mitigation to participate in the group interviews, and the workers identified by PG&E were invited to participate in the interviews. A total of 17 PG&E employees participated in the three workforce survey follow-up calls. Four of the 17 had been working for PG&E for more than four years. Two of the groups consisted of frontline employees whose work entails some form of wildfire mitigation. These interviews were 90 minutes in length, conducted virtually via conference call and facilitated by a DEKRA consultant. A total of ten frontline workers participated in the two calls (five on one, five on the other). The third group was an hour-long virtual meeting with seven PG&E frontline supervisors,<sup>14</sup> including the four call participants with tenures longer than four years, supervising work that entails some form of wildfire mitigation. This was also facilitated by a DEKRA consultant. Interview questions followed a semi-structured format. They were open-ended and allowed for follow-up questions for clarity. For example, "What words would you use to describe the culture here?" and "How are personal safety and wildfire hazards addressed here?"

## **2.4 Management Self-Assessment Data Collected**

Each large electrical corporation completed a management self-assessment consisting of 22 questions organized into three categories: organizational sustaining systems,

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<sup>14</sup> Frontline Supervisors: here, the first level of leadership that has direct oversight of employees within operational units of the organization.

governance, and safety-enabling systems. These categories represent the systems and management processes that are needed for a safety culture to advance and sustain itself.

Respondents answered each question using a four-point behaviorally anchored rating scale. The safety culture maturity scale used in the management self-assessment starts on the low end at Level 1, "Requirement" (i.e., minimum requirements are met), and goes up to Level 4, "Who We Are."

The electrical corporation selected the team of employees that would complete the management self-assessment. Each large electrical corporation submitted one self-assessment.

For each of the 22 questions, the management self-assessment respondents evaluated the current (2021) status of their organization and provided a justification for this rating using a free text form. In addition, respondents rated how much progress they expect the organization to make by the end of 2022 on the same questions and scales.

Each electrical corporation also submitted supporting documentation, providing the following:

1. Safety culture objectives for the next 12 months.
2. Safety culture objectives for the next three years.
3. A description of lessons learned since the most recent Safety Culture Assessment.<sup>15</sup>
4. A summary plan for how each corporation will achieve its 2022 self-assessment goals in the coming year.

Finally, DEKRA conducted an interview with the electrical corporation employees who had completed the management self-assessment to better understand their submission and supporting documentation. Like the workforce survey follow-up interviews, this interview was conducted virtually.

## **2.5 Next Steps in Assessment Process**

This is the first annual Safety Culture Assessment under Public Utilities Code Section 8389(d)(4) and as such provides a baseline for future comparison. Following the publication of this report, PG&E may agree to implement its findings to demonstrate "good standing" per Public Utilities Code Section 8389(e)(2).<sup>16</sup>

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<sup>15</sup> As 2021 is the first year of the annual Safety Culture Assessment under Public Utilities Code Section 8389(d)(4), the electrical corporation was asked to evaluate lessons learned since its "most recent" safety culture assessment (if any), and specifically to: "[d]escribe how the electrical corporation's objectives and priorities with respect to safety culture have evolved over the past year. Outline any major themes and lessons learned over the past 12 months and subsequent actions taken. If you have not completed a safety culture assessment in over three years, consider your safety culture as it exists today and describe the major themes that exist today." (See Section 6.4 "Lessons Learned" below for more information.)

<sup>16</sup> Pub. Util. Section 8389(e)(2), "The electrical corporation is in good standing, which can be satisfied by the electrical corporation having agreed to implement the findings of its most recent safety culture

## 3. Findings

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### 3.1 Strengths

#### 3.1.1 PG&E is instituting a five-year strategy to advance its safety culture.

In 2020, PG&E launched a five-year 2025 Workforce Safety Strategy to advance its culture and systems for wildfire and personal safety. This is a recognition of historical issues in the organization and a concerted, long-term effort to advance its safety culture.

Improving the safety culture requires an emphasis on wildfire safety. Of the 30 statements on the workforce survey, the wildfire and safety statements were rated slightly higher than the culture statements (averaging 4.14 compared to 4.07 on the five-point Likert scale). According to the survey, people seem to trust their supervisors with a very high 74 percent strongly agreeing with the statement, “I feel comfortable discussing wildfire hazards with my supervisor,” one of the most highly rated statements on the survey. In response to the statement “my supervisor would use whatever power he/she has to help me out,” 87 percent strongly or somewhat agreed. In response to “leaders encourage people to ask questions” 84 percent strongly or somewhat agreed.

This is supported by the results of the follow-up interviews. One notable observation from the interviews was hearing participants’ positive views on PG&E’s Hazard Awareness Warning Center (HAWC, until recently called the Wildfire Safety Operations Center or WSOC, established in 2018) and Safety and Infrastructure Protection Team (SIPT) program (also established in 2018 and expanded in 2020). The frontline workers in particular view it as credible and providing critical support on the wildfire safety front.

In response to a question about whether crews stop and step back when conditions change, one public safety specialist working at the HAWC gave this example:

*There was a full project, they were re-hardening, reconductoring transmission lines, in the wildfire safety realm. They [at the HAWC] were frequently in contact with the project manager. A little piece fell in a Tier 2 area, with the rest outside the fire danger area, but it was close, and it was a high-fire-danger day, so [the HAWC] decided it wasn’t a day they wanted to take a risk. With grinding? On a Red Flag Warning day? No.*

This supports the workforce survey result where 87 percent of respondents strongly or somewhat agreed with the statement “pausing work for hazards and safety concerns is viewed positively.”

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assessment, if applicable” (accessed July 16, 2021):  
[https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?sectionNum=8389.&lawCode=PUC](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=8389.&lawCode=PUC)).



Improving the safety culture also requires an emphasis on the overall culture (that is, how people treat each other) and personal safety. Within PG&E, there are some strengths present in the current culture as assessed by this process. Among the workforce survey respondents, 90 percent strongly or somewhat agreed with the statement “people in my work group treat each other with respect,” and 84 percent strongly or somewhat agreed that “information about important events and lessons learned is shared within my work group.” The positive survey results were supported by findings from the workforce survey follow-up interviews. Participants described the PG&E culture as teamwork-oriented, collaborative, open, inclusive, professional, and adaptive. Focus group participants repeatedly made statements such as “We look out for each other and are our brother’s keeper.”

Interview participants further indicated that there is a good “speak-up” culture, and safety calls happen on a regular basis (daily and monthly), including the monthly employee-led “Grassroots” call, where new ideas and concerns are floated and accidents are discussed. The vegetation management department, one worker reported, is doing better at having a “speak-up” culture.

On the topic of leadership, interview participants described their immediate supervisors as engaged, dedicated, available, and driven to continually improve. Interview participants reported satisfaction with their immediate supervisor and stated that safety is their supervisor’s top priority.

Regarding improvements at PG&E over time, one participant on the supervisor call indicated that communication channels (e.g., up and down the corporation) are improving under the leadership of new PG&E CEO Patti Poppe. In response to a question about whether workers take short-cuts, another participant on the supervisor call indicated that they do not, or they do so less often since provisions were put in place “a few years ago” to safeguard employees and the public. It appears evident that PG&E has increased its emphasis on both personal and wildfire safety over recent years.

### **3.1.2 Safety systems at PG&E are continuing to advance as part of its five-year plan.**

PG&E’s management self-assessment and supporting documentation describe an organization that is open and honest about the current state of its safety culture maturity and the development needed to advance safety.

On 10 of the 22 self-assessment statements, PG&E rated its 2021 status at Level 3 (“Value”) or Level 4 (“Who We Are,” the top level). Of these 10 statements, only one is currently rated at Level 4. By the end of 2022, PG&E expects to be at Level 4 on seven of the questions and at Level 3 on twelve of the questions, advancing in its maturity on over half (13) of the 22 questions (see Section 6.2.1).

For example, the team completing the self-assessment indicated that the incident<sup>17</sup> investigation processes and the post-investigation methods for developing and implementing corrective actions are currently at Level 2 (“Priority”). However, the self-assessment also indicated that PG&E has invested in the resources and systems needed to improve in these areas with the expectation that several of these elements will advance to Level 3 (“Value”) by the end of 2022. For example, PG&E’s incident investigations office started with seven staff in 2019 but now has 35, incorporating the Corrective Actions Program.

Also, in 2020, PG&E launched its safety management system (SMS)<sup>18,19</sup> to track incidents and conduct internal safety audits. In addition, corrective actions have been integrated into this system so that with each investigated incident, corrective actions are identified with owners, risk rankings, and a timeline to address the action. This is then reviewed by leadership.

PG&E hired a new staff member in 2020 to lead the SMS deployment and PG&E’s 2022-2025 Corporate Safety Audit Program (Rico Salas, Director of Safety Assurance and Enterprise Safety). The program was launched in March 2021 and conducted its first safety audit at Colusa Generating Station. PG&E stated that the audit is not yet completed, therefore they are awaiting the action plan. PG&E is also engaging Ernst and Young, an outside firm, to conduct an external safety audit.

Additionally, training programs for frontline supervisors, workers, and contractors are currently focused on job-required training. The wildfire training is siloed within each line of business and the frontline worker training on human performance tools such as Two-Minute Drill, Pre-Job Brief, etc., is only offered in an individual stand-alone training format. PG&E’s objective in the next year is to increase the standardization of the wildfire training by using the training team’s methodology, approach to content development, skills assessment, and tracking. In addition, PG&E’s objective for the human performance tools is to build an integrated module of these tools that can be paired with any training.

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<sup>17</sup> Incident: here, an unplanned, undesired event that adversely affects normal operations.

<sup>18</sup> A safety management system is a method for providing management control of safety risks in the operations. This is typically accomplished through commercially available software systems designed to help companies record hazards and incidents, document corrective actions, and display and communicate results.

<sup>19</sup> From the 12-month goals section of PG&E’s self-assessment: “The development of the Health and Safety Management System includes implementation of a Leadership and Engagement Standard, revising the safety leadership training course, safety audits, and increasing officers and directors time in the field having informal conversations with employees.” See Section 6.3 “Safety Culture Objectives” for the complete response.

## 3.2 Opportunities

### 3.2.1 Implementation of PG&E's 2025 Workforce Safety Strategy is hindered by its disjointed and fragmented approach.

Strategy implementation requires clarity, focus, and a disciplined governance process to set the strategy, define the action steps, establish deadlines and accountability mechanisms, and continually monitor and remove barriers to ensure progress. The findings from this assessment indicate that PG&E's strategy and its execution are disjointed and fragmented.

A component of the self-assessment required each electrical corporation to submit their plan for achieving the 2022 self-assessment targets, and the safety culture objectives for the next 12 months and three years. PG&E's submission, especially when compared to the submissions of the other large electrical companies, provides no specific information that would give an outside reviewer confidence that (a) the strategy is well-formulated, (b) a specific plan with actions, milestones, responsible parties, and metrics is in place to execute the strategy, or (c) PG&E is sufficiently focused on the specific areas it needs to improve. For example:

- Several of the plans were phrased as possibilities, not as concrete plans. For example, "changes to our selection process could also include individual goal review such as wildfire safety performance...." This language does not provide confidence that these changes to the selection process have been approved or there is a project plan for implementation.
- On several self-assessment ratings, the respondents indicated an expectation that PG&E would advance its maturity by 2022. However, PG&E's summary plan for 2022 omitted any steps related to those expected advancements. On follow-up, PG&E indicated that "there is not a project plan for implementation with deadlines."
- In the self-assessment follow-up interview, no representatives from PG&E were knowledgeable enough to discuss submissions in either the organizational sustaining systems or governance statement categories. PG&E indicated there was a misunderstanding about who was expected to attend the interview, so attendees could only answer a narrow subsection of DEKRA's clarifying questions.

This fragmented approach was also evident in the workforce survey follow-up interviews. Interview participants' statements indicate that they perceive that, within PG&E, people in the Gas, Electric, Nuclear, and Hydro departments live in separate silos.<sup>20</sup> For example, one participant who works at the HAWC said, "Electric doesn't know what Gas is doing and that's a challenge in our group...[because] we become agency reps [representatives for the company] in an incident, and we have to get everyone rolling in the same direction."

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<sup>20</sup> PG&E has approximately 23,000 employees and covers a service territory of 70,000 square miles. It supplies both electricity and natural gas to its customers. In addition to providing transmission and distribution, it provides energy generation services. Its energy generation portfolio includes hydroelectric, gas combustion, and nuclear. For more information: [https://www.pge.com/en\\_US/about-pge/company-information/profile/profile.page](https://www.pge.com/en_US/about-pge/company-information/profile/profile.page) (accessed July 29, 2021).

Over the last three years many frontline supervisors and employees from the California Department of Forestry and Fire Protection (CAL FIRE) and the United States Forest Service (USFS) have been hired by PG&E to contribute to wildfire mitigation activities at the HAWC and through the SIPT program. These individuals are familiar with an incident command structure that is clear, vertical, and has one overall incident commander. PG&E has a matrixed organization where critical decisions on personal and wildfire safety can and do get lost. Some interviewees whose background includes fire service noted that working for PG&E took some adjustment: instead of having one fire chief in charge, PG&E has multiple parallel chains of command (e.g., gas, hydro, electric, nuclear).

Interview participants also said that because of this siloed and matrixed structure, information does not flow freely, and not all information goes up to the top of the organization. This reinforces the workforce survey result indicating that only 25 percent of respondents strongly agree that “the company cares about my opinions,” one of the weakest results on the survey.

A clear governance structure for safety helps ensure the systems and resources PG&E is putting in place are all working effectively together. PG&E generates a lot of data concerning personal and wildfire safety with both leading<sup>21</sup> and lagging<sup>22</sup> indicators. However, a few interview participants felt like fire safety-related information could be provided in a more streamlined way. One SIPT crew member indicated that the corporation could benefit from having a single platform for sharing safety-related information:

*If there was one singular platform, a one-stop-shop to allow all areas to communicate, coordinate, share information... we have that to some extent with [a virtual platform] but there might be an opportunity there.*

One interviewee said his team’s daily safety briefings and updates take place via email, and that is helpful only if they happen to be somewhere with internet connectivity. Another complained that the start times for the different crews are staggered, making it hard to coordinate fire mitigation activities:

*Crews are starting at different times. Sometimes the gas crew has left half an hour before we start, so we call them to let them know the weather conditions. We’re trying to coach them along. Especially in shoulder seasons we should be more integrated with those folks. We’re trying to support them.*

This lack of streamlined information sharing may be related to the low score respondents gave on the workforce survey to the statement, “We have the right tools for the job” (see Section 6.1.2).

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<sup>21</sup> Leading Indicator: here, an input measure that is predictive of a future event.

<sup>22</sup> Lagging Indicator: here, an outcome or output measure that is backward-looking, describing a past event.

### 3.2.2 PG&E's safety culture has opportunities to improve in recognizing serious wildfire and personal safety exposures and creating a positive learning environment

In the most mature safety cultures, frontline workers engage in positive discussions with leadership on immediate and consequential personal and wildfire safety exposures in their work environment and then work together to mitigate those exposures.<sup>23</sup> By doing so, frontline workers become more adept at recognizing and reporting exposures as well as their own errors because the work environment is future-oriented and focused on fixing problems, not assigning blame.

Results from the workforce survey and the interviews indicate PG&E has opportunities to improve in these areas. For example, only 19 percent of survey respondents "strongly agreed" with the statement "I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them." All three large electrical corporations' worst performance overall on the workforce survey was on this statement.<sup>24</sup> Only 39 percent "strongly agreed" that "leaders actively seek out signs of potential wildfire hazards." Other workforce survey statements with notably negative ratings include:

- "People focus on one task at a time and avoid distractions" (19 percent strongly agreed; 31 percent somewhat or strongly disagreed).
- "People report mistakes they make, even if others do not notice them" (25 percent strongly agreed; 18 percent somewhat or strongly disagreed).

See Section 6.1.1 for the complete results.

Hazard exposures in the work environment can span a broad range of safety concerns. Across all three workforce follow-up interviews, one of the exposures cited most often by frontline supervisors and workers was interactions with certain discontented members of the public.<sup>25</sup> PG&E vegetation management workers in particular have noticed more frequent escalations when interacting with members of the public in recent years as they respond to increased demands for vegetation removal in light of drought and other increasing wildfire risks. One participant noted that, "From the

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<sup>23</sup> Exposure: here, a state of vulnerability to injury that exists when a person comes in contact with a hazard. Exposure reduction or exposure control results from separating the person from the hazard and protecting the person from the vulnerability raised by the hazard (for example, by wearing protective equipment).

<sup>24</sup> For all three large electrical corporations surveyed, this statement garnered the highest "strongly disagree" negative response of all 30 statements (7 percent of SDG&E's respondents, 11 percent of SCE's respondents, and 15 percent of PG&E's respondents).

<sup>25</sup> In response to the question "what are the top three hazards on the job," PG&E interviewees mentioned approximately eight different hazards: most mentioned (7 times) was "the nature of our work" (it is "inherently dangerous," e.g., working aloft, roping and rigging, falls, high voltage; "conductor" was specifically mentioned); (6 times) driving; (5 times) interactions with members of the public; (2 times) lack of awareness of surroundings, situational awareness; (1 mention each) falling object, working in fire-scarred terrain, drought (e.g., "The weather and the droughts. Drought could increase bark beetle infestations – this leads to dead trees.").



customer standpoint, we are out on property multiple times a year and they are tired of us being out there." Another noted, referencing the wildfire started by PG&E's equipment that destroyed the town of Paradise,<sup>26</sup> "Customers right now are very hostile. PG&E is seen as the bad guy." Frontline workers would like to see PG&E do more to educate customers about the community benefits of vegetation removal and to do more to garner support for PG&E's vegetation management efforts from leadership outside the energy industry.

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<sup>26</sup> "Pacific Gas & Electric pleaded guilty on Tuesday to 84 separate counts of involuntary manslaughter and one felony count of unlawfully starting a fire in a case stemming from a horrific 2018 blaze that destroyed much of the town of Paradise in Northern California." (Vanessa Romo, NPR, June 16, 2020, "PG&E Pleads Guilty On 2018 California Camp Fire: 'Our Equipment Started That Fire,'" accessed July 19, 2021: <https://www.npr.org/2020/06/16/879008760/pg-e-pleads-guilty-on-2018-california-camp-fire-our-equipment-started-that-fire>.)

## 4. Recommendations

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### 4.1 Improve focus and discipline related to safety culture improvement

It takes years to change an organization's culture and it is impossible to improve everything at once. Therefore, it's critical that PG&E clarify its direction and identify the most important areas to improve first. Then, with focus and discipline, PG&E needs to execute the actions needed to make progress, but this will not occur until a formal change-management plan is instituted, complete with alignment across leadership, governance, and systems.

#### 4.1.1 Build leadership skills and ensure leaders are demonstrating those skills regularly in the field to improve the work environment for wildfire and personal safety.

The first element necessary for creating a robust culture for personal and wildfire safety is leadership. Culture change is driven by leadership, but leadership needs to act as one unit to create the necessary momentum for sustainable change, moving the organization from transactional and reactive behavior to proactive and transformational change. This is accomplished when the organization builds leadership skills and then sets targets and tracks safety supervisor activities in the field (for example, safety contacts, observations, hazard inspections, tailgates) so that the skills are demonstrated in the work environment.

- **Observation:** There are gaps in PG&E's culture for wildfire and personal safety. Employees don't feel the company cares about their opinions and field personnel indicate they're not regularly asked for their ideas on wildfire hazards or have the right tools for the job.
- **Goal of Recommendation:** Ensure frontline supervisors are equipped with the skills to lead effectively and are present in the field engaging with their employees on wildfire and personal safety.
- **Verification Method:** In next year's assessment, provide a description of how PG&E has made progress toward this goal, in particular addressing how field supervisors are soliciting employee feedback and using it to improve wildfire mitigation initiatives. Progress should be evident in increased positivity in response to the 2022 workforce survey statements "leaders actively seek signs of potential wildfire risks," "the company cares about my opinions," and "I am asked for my ideas and suggestions about wildfire hazards."

#### 4.1.2 Establish a governance structure to ensure effective implementation and tracking of the 2025 Workforce Safety Strategy.

PG&E's leadership needs to deploy an effective safety governance structure<sup>27</sup> across all business units. The governance structure must ensure a detailed plan is in place and monitor implementation to verify the strategy is executed, obstacles are removed, and progress is made.

- **Observation:** Safety culture is developing differently in different departments, and safety-related information is located in a variety of places and communicated in a variety of ways. PG&E's disjointed approach is hindering progress.
- **Goal of Recommendation:** Bring safety governance practices into better alignment across business units.
- **Verification Method:** In next year's self-assessment, provide a detailed description of how PG&E has made progress toward this goal. This includes detailing the 2025 Workforce Safety Strategy, the implementation project plan, and the approach used to monitor, ensure accountability, and track progress. Furthermore, accountability for the governance process needs to reside with senior operational leaders to ensure it is a high priority for the organization.

Implementing and communicating an effective governance structure for the 2025 Workforce Safety Strategy would enable PG&E to operate holistically, reduce silos, and follow through on its commitments to improving personal and wildfire safety.

#### 4.1.3 Execute the 2025 Workforce Safety Strategy with active leadership by senior executives to ensure implementation.

Creating a strategy for improvement followed by a detailed plan of execution is just one element for changing the wildfire safety culture. Senior leadership must actively manage the governance process and oversee the implementation to ensure PG&E's strategy receives the visibility, attention, and resources necessary for success.

- **Observation:** It was not evident based on the management self-assessment submission that the SCA had the attention or priority of senior leadership within PG&E.
- **Goal of Recommendation:** Ensure that the execution of the 2025 Workforce Safety Culture strategy is a high priority for PG&E leadership.
- **Verification Method:** In next year's self-assessment, provide a detailed description of roles and responsibilities with respect to the 2025 Workforce Safety Strategy, demonstrating how PG&E's executive leadership<sup>28</sup> is directly involved and responsible for the implementation of this strategy.

Direct involvement by PG&E's executive leadership in the implementation of these SCA recommendations and the 2025 Workforce Safety Strategy will increase the chances

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<sup>27</sup> Governance structure: here, a framework for providing oversight and management of the 2025 Workforce Safety Strategy to ensure the strategy is planned and implemented effectively.

<sup>28</sup> Executive Leadership: here, the highest level of management in an organization, reports to the CEO.

that the strategy's projects and programs are executed on time and will ensure the strategy remains a top priority for the organization.

#### **4.1.4 Leverage the new safety management system to improve the flow of information up, down, and across the organization and provide a single mechanism for reporting and tracking wildfire concerns.**

PG&E's leadership should leverage the information collected from the new safety management system (SMS) and corrective actions program to improve information flow and drive the implementation of corrective actions, broad-based learning, and systemic improvement. Having a central repository of information, where different departments could access safety-related information, including information on wildfire conditions, would help PG&E streamline information flow and provide a single source of accessible data to frontline workers in the field. Championing these changes throughout the organization can reinforce a non-punitive approach to incident and near-miss reporting,<sup>29</sup> thus continuing to advance the safety culture.

- **Observation:** The workforce survey results indicate only 25 percent of respondents "strongly agree" that "the company cares about my opinions" and 19 percent "strongly agree" while 15 percent "strongly disagree" that they are "regularly asked for [their] ideas and suggestions about wildfire hazards and ways to address them."
- **Goal of Recommendation:** Ensure that streamlined information about safety issues (including both personal safety and wildfire safety) flows down to frontline workers and that information about hazards filters up to organizational leadership and across the business units.
- **Verification Method:** In next year's self-assessment, provide a detailed description of how the new safety management system is being used to improve the flow of safety-related information up, down, and across the organization. Progress should be evident in increased positivity in response to the statements "the company cares about my opinions" and "I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them" on the 2022 workforce survey.

PG&E could improve information flow about frontline hazards and management credibility by building on the monthly Grassroots call to better engage frontline workers directly in discussions about their most significant exposures. This could strengthen employee perceptions that the company cares about workforce opinions and may stimulate new ideas about how to reduce wildfire hazards. Improving information flow will also help PG&E communicate in one voice, ensuring that critical information moves freely up, down, and across the organization

#### **4.1.5 Increase engagement on the safety culture assessment within the workforce supporting wildfire mitigation initiatives.**

The workforce survey response rate was low relative to the other large electrical utilities. In the future PG&E must employ a more robust communication strategy

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<sup>29</sup> Near Miss: here, an unplanned event that did not result in injury, illness, or damage, but had the potential to do so.

(involving senior leadership) to promote the survey. PG&E should also consider employing different strategies such as paper surveys and service center visits to reach more frontline workers.

- **Observation:** Low response rate on safety culture workforce survey.
- **Goal of Recommendation:** Improve engagement on safety culture within relevant workforce throughout the year so that there is increased response on next year's workforce survey. Diversify the tactics for soliciting survey responses from the frontline workforce.
- **Verification Method:** Greater workforce survey response rate in 2022. The goal should be to achieve at least a 50 percent response rate.

Improving the workforce survey response rate would demonstrate that (a) PG&E has a more structured approach to improving workforce engagement, (b) has developed an effective 2025 Workforce Safety Strategy, and (c) is able to execute the strategy effectively. In addition, it would provide a more complete view of workforce safety culture perceptions enabling more targeted follow-up actions.

## 4.2 Recognize and take action to mitigate the risk exposure posed by interactions with certain discontented members of the public

Frontline workers report significant concerns for their personal safety from interactions with certain discontented members of the public. Interview participants indicated their belief that this hostility may be related to the use of Public Safety Power Shutoffs (PSPS) and vegetation management activities. It was reported as a safety concern by workers at all three large electrical corporations. PG&E's negative public reputation makes this exposure especially concerning for PG&E's frontline workers.

- **Observation:** Participants in the workforce survey follow-up interviews noted a sharp increase in the frequency of hostile interactions with discontented members of the public over the past few years, particularly in vegetation management work. This is not only a problem for worker safety and morale but could meaningfully hamper wildfire mitigation activities.
- **Goal of Recommendation:** Reduce the safety risks to the workforce from the public. To this end, PG&E should track the trends in hostile interactions with the public to guide future response strategies and develop (if not already developed) and train frontline workers on a protocol to de-escalate and disengage from unsafe interactions with the public.
- **Verification Method:** In next year's self-assessment, provide a description of how PG&E has made progress toward this goal. If a protocol and training are already in place, provide all available information on outcomes from the training (e.g., reports of improvements in interactions with the public using tactics learned in the training).

Beyond the obvious benefit of potentially improving frontline worker safety, tracking trends in hostile interactions with the public and developing a protocol and related training around de-escalation and disengagement would demonstrate that field voices are welcome—and heard—at management levels.



## 5. Conclusion

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This report provides the findings from PG&E's first Safety Culture Assessment under Public Utilities Code Section 8389(d)(4). It gives Energy Safety a baseline measurement of PG&E's current safety culture for future comparison. Following the publication of this report, PG&E may agree to implement its findings to demonstrate "good standing" per Public Utilities Code Section 8389(e)(2).

This process is intended to be complementary to, and not a replacement for, ongoing work to improve safety culture at PG&E. Energy Safety seeks to develop a longitudinal view of safety culture across electrical corporations to identify best practices and relative gaps, along with an understanding of PG&E's relative strengths and opportunities in designing and implementing a strong safety culture. As stated above, Energy Safety ultimately seeks to assess safety culture outcomes over time and incorporate continuous learning into the SCA process.<sup>30</sup>

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<sup>30</sup> Safety Culture Assessment: Requirements of Electrical Corporations (2021), p. 3.





## 6. Data Attachments

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### 6.1 Workforce Survey Results

The results for the Workforce Survey are displayed on the following pages. In the tables in 6.1.2 “Results by Demographic Questions” and 6.1.3 “Results by Tenure and Level in the Organization” below, the data in the “Null” column represent results from respondents who chose not to respond to the demographic question. For example, in 6.1.2, there were 47 respondents who did not indicate their Level on the survey.

The colors assigned to average scale scores correspond to percentile scores based on the typical distribution of scores across DEKRA clients evaluating comparable statements using a survey instrument as follows:

-  90<sup>th</sup> percentile
-  75<sup>th</sup> percentile
-  50<sup>th</sup> percentile
-  Below 50<sup>th</sup> percentile

6.1.1 Overall Results

SENTIMENT ANALYSIS: PG&E		Overall Category Mean	Strongly Agree (5)	Somewhat Agree (4)	Neutral (3)	Somewhat Disagree (2)	Strongly Disagree (1)
Culture		4.07	47%	29%	7%	7%	6% 5%
Safety		4.14	50%	28%	6%	6%	6% 4%
Wildfire		4.14	51%	24%	8%	8%	4% 4%
Culture	People in my work group treat each other with respect	4.50	68%	22%	3%	3%	
	My supervisor would use whatever power he/she has to help me out	4.44	66%	21%	3%	3%	3%
	Leaders encourage people to ask questions	4.28	54%	30%	4%	4%	3%
	Information about important events and lessons learned is shared within my work group	4.26	55%	29%	4%	5%	3%
	My supervisor makes sure all employee concerns are heard before job decisions are made	4.16	52%	26%	6%	5%	5%
	Managers treat workers with respect	4.13	49%	31%	5%	6%	4%
	People listen to one another; it is rare that someone's views go unheard	3.91	37%	34%	8%	8%	8% 5%
	I believe managers apply the same rules for all workers	3.77	39%	27%	8%	8%	10% 9%
	People report mistakes they make, even if others do not notice them	3.62	25%	33%	14%	14%	10% 5%
	The company cares about my opinions	3.59	25%	36%	11%	11%	10% 8%
Safety	I take responsibility for the safety of myself and others in my work area	4.76	81%	16%	1%		
	If I stopped a job because an important safety step was missing, it would be viewed positively by my supervisor	4.56	72%	17%	1%	2%	
	Pausing work for hazards and safety concerns is viewed positively	4.43	64%	23%	3%	3%	
	I stop people, even those I do not know, to point out unsafe behavior when I see it in the work environment	4.33	55%	28%	7%	7%	2%
	Accidents and incidents are investigated completely to find out what happened and the corrective actions needed	4.27	56%	25%	6%	4%	3%
	People have the skills they need to resolve workplace safety issues	4.09	40%	39%	6%	5%	3%
	Leaders use mistakes and incidents as learning opportunities	4.13	47%	33%	6%	5%	4%
	Leaders keep people prepared to intervene when an emergency occurs	4.00	42%	31%	8%	8%	6% 4%
	People have the ability to respond and correct problems and errors before they get out of control	3.87	33%	38%	9%	9%	8% 4%
	We have the right tools for the job	3.88	37%	36%	6%	9%	6%
	People focus on one task at a time and avoid distractions	3.23	19%	29%	11%	11%	17% 14%
	Wildfire	My workgroup follows procedures to control workplace and wildfire hazards	4.51	66%	24%	1%	
I feel comfortable discussing wildfire hazards with my supervisor		4.57	74%	15%	1%		
Wildfire and personal safety concerns are communicated openly		4.38	59%	28%	4%	2%	3%
Protecting the community from wildfire hazards is clearly a high priority with management		4.47	69%	18%	3%	3%	
People look for wildfire hazards and risks as work progresses		4.10	43%	32%	11%	11%	3% 2%
People in my work group report all wildfire hazards, no matter how minor		4.12	48%	22%	12%	12%	
Our management acts quickly to address wildfire hazards		4.06	46%	28%	8%	8%	6% 4%
Leaders actively seek out signs of potential wildfire hazards		3.88	39%	25%	12%	12%	7% 4%
I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them		3.15	19%	20%	16%	16%	13% 15%

## 6.1.2 Results by Demographic Questions

### SURVEY RESULTS by DEMOGRAPHIC: PG&E

	OVERALL	EMPLOYEE TYPE		LEVEL					
		Full Time Employee	Contractor	Officer	Director	Manager/ Superintendent	Supervisor	Individual Contributor-FLE	Null
	1,737	1,572	165	9	36	148	201	1,131	47
<b>Culture Average</b>	<b>4.07</b>	<b>4.04</b>	<b>4.28</b>	<b>4.38</b>	<b>4.23</b>	<b>4.15</b>	<b>4.22</b>	<b>4.01</b>	<b>3.57</b>
I believe managers apply the same rules for all workers	3.77	3.74	4.12	4.11	3.78	4.06	4.06	3.66	3.06
Information about important events and lessons learned is shared within my work group	4.26	4.23	4.58	4.33	4.44	4.28	4.46	4.20	3.81
Leaders encourage people to ask questions	4.28	4.26	4.41	4.67	4.47	4.38	4.45	4.22	3.87
Managers treat workers with respect	4.13	4.12	4.27	4.33	4.36	4.37	4.29	4.07	3.47
My supervisor makes sure all employee concerns are heard before job decisions are made	4.16	4.16	4.18	4.33	4.31	4.21	4.36	4.13	3.85
My supervisor would use whatever power he/she has to help me out	4.44	4.45	4.40	4.67	4.56	4.51	4.58	4.43	3.89
People in my work group treat each other with respect	4.50	4.49	4.61	4.78	4.69	4.57	4.60	4.47	3.98
People listen to one another; it is rare that someone's views go unheard	3.91	3.88	4.21	4.11	3.97	3.88	4.00	3.86	3.68
People report mistakes they make, even if others do not notice them	3.62	3.58	4.03	3.89	3.72	3.54	3.77	3.56	3.13
The company cares about my opinions	3.59	3.54	4.02	4.56	3.97	3.74	3.67	3.49	2.98
<b>Safety Average</b>	<b>4.14</b>	<b>4.11</b>	<b>4.43</b>	<b>4.45</b>	<b>4.11</b>	<b>4.10</b>	<b>4.24</b>	<b>4.10</b>	<b>3.79</b>
Accidents & incidents are investigated completely	4.27	4.24	4.57	4.56	4.22	4.38	4.34	4.21	3.96
I stop people to point out unsafe behavior when I see it	4.33	4.31	4.50	4.78	4.56	4.39	4.44	4.27	4.04
I take responsibility for the safety of myself and others in my work area	4.76	4.76	4.82	4.89	4.89	4.81	4.84	4.74	4.49
Leaders keep people prepared to intervene when an emergency occurs	4.00	3.97	4.35	4.44	4.14	4.09	4.19	3.92	3.62
Leaders use mistakes and incidents as learning opportunities	4.13	4.09	4.47	4.22	3.94	4.11	4.24	4.08	3.77
Pausing work for hazards and safety concerns is viewed positively	4.43	4.41	4.64	4.89	4.42	4.57	4.54	4.38	3.91
People focus on one task at a time and avoid distractions	3.23	3.17	3.72	3.33	2.94	2.82	3.24	3.22	2.98
People have the ability to respond and correct problems and errors before they get out of control	3.87	3.84	4.21	4.00	3.64	3.61	3.96	3.86	3.66
People have the skills they need to resolve workplace safety issues	4.09	4.06	4.37	4.33	4.19	4.00	4.15	4.06	3.66
Stopping a job because a safety step is missing, is viewed positively by my supervisor	4.56	4.54	4.70	5.00	4.58	4.65	4.74	4.51	4.15
We have the right tools for the job	3.88	3.82	4.43	4.56	3.72	3.65	3.97	3.83	3.51
<b>Wildfire Average</b>	<b>4.14</b>	<b>4.11</b>	<b>4.44</b>	<b>4.49</b>	<b>4.50</b>	<b>4.24</b>	<b>4.28</b>	<b>4.06</b>	<b>3.75</b>
I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them	3.15	3.11	3.58	4.00	3.97	3.40	3.27	3.03	2.68
I feel comfortable discussing wildfire hazards with my supervisor	4.57	4.57	4.63	5.00	4.83	4.68	4.74	4.52	4.21
Leaders actively seek out signs of potential wildfire hazards	3.88	3.84	4.28	4.11	4.33	4.00	4.02	3.78	3.51
My workgroup follows procedures to control workplace and wildfire hazards	4.51	4.49	4.72	4.56	4.75	4.54	4.62	4.47	4.13
Our management acts quickly to address wildfire hazards	4.06	4.01	4.50	4.56	4.31	4.15	4.17	3.96	3.70
People in my work group report all wildfire hazards, no matter how minor	4.12	4.08	4.50	4.33	4.44	4.22	4.30	4.02	3.81
People look for wildfire hazards and risks as work progresses	4.10	4.06	4.48	4.11	4.36	4.07	4.26	4.03	3.74
Protecting the community from wildfire hazards is clearly a high priority with management	4.47	4.46	4.62	4.89	4.89	4.67	4.59	4.40	4.09
Wildfire and personal safety concerns are communicated openly	4.38	4.35	4.64	4.89	4.64	4.40	4.58	4.31	3.89

WILDFIRE HAZARD ACTIVITIES: PG&E

LEGEND

High 4.1+ | Med High 3.65-4.1 | Medium 3.3-3.65 | Low <3.3

	Asset inspection, maintenance and repair (...)	Community engagement	Grid operations	Monitoring weather for wildfire risk	PSPS initiation and re-energization	Vegetation assessment and mitigation	Wildfire and PSPS risk assessment	Wildfire data collection and tracking	Wildfire emergency planning and preparation	Other
	372	128	200	206	384	323	444	190	234	610
<b>Culture Average</b>	3.97	3.99	3.96	4.16	3.94	4.18	4.07	3.99	4.01	4.03
I believe managers apply the same rules for all workers	3.65	3.72	3.65	3.91	3.61	3.94	3.74	3.72	3.74	3.70
Information about important events and lessons learned is shared within my work group	4.15	4.17	4.24	4.44	4.15	4.43	4.27	4.20	4.21	4.19
Leaders encourage people to ask questions	4.17	4.13	4.15	4.33	4.15	4.29	4.26	4.20	4.23	4.27
Managers treat workers with respect	4.01	4.05	4.01	4.26	4.02	4.27	4.15	4.13	4.13	4.09
My supervisor makes sure all employee concerns are heard before job decisions are made	4.13	4.06	4.07	4.17	4.07	4.20	4.13	3.99	4.14	4.13
My supervisor would use whatever power he/she has to help me out	4.32	4.32	4.36	4.50	4.33	4.46	4.43	4.35	4.41	4.44
People in my work group treat each other with respect	4.47	4.45	4.46	4.50	4.45	4.63	4.52	4.43	4.44	4.51
People listen to one another; it is rare that someone's views go unheard	3.79	3.82	3.74	4.07	3.75	4.09	3.95	3.74	3.77	3.85
People report mistakes they make, even if others do not notice them	3.56	3.59	3.62	3.71	3.55	3.76	3.66	3.55	3.54	3.54
The company cares about my opinions	3.42	3.56	3.37	3.68	3.35	3.73	3.64	3.61	3.51	3.56
<b>Safety Average</b>	4.14	4.10	4.05	4.26	4.07	4.27	4.12	4.02	4.07	4.08
Accidents & incidents are investigated completely	4.19	4.17	4.17	4.35	4.11	4.47	4.23	4.23	4.25	4.24
I stop people to point out unsafe behavior when I see it	4.43	4.38	4.35	4.43	4.36	4.45	4.34	4.21	4.33	4.33
I take responsibility for the safety of myself and others in my work area	4.79	4.84	4.72	4.77	4.79	4.82	4.76	4.69	4.79	4.79
Leaders keep people prepared to intervene when an emergency occurs	3.93	4.02	3.88	4.11	3.91	4.12	4.06	4.04	4.00	3.95
Leaders use mistakes and incidents as learning opportunities	3.97	4.05	4.01	4.25	3.90	4.26	4.07	3.95	4.03	4.12
Pausing work for hazards and safety concerns is viewed positively	4.37	4.40	4.37	4.52	4.40	4.58	4.41	4.39	4.38	4.37
People focus on one task at a time and avoid distractions	3.29	3.19	3.02	3.39	3.11	3.35	3.10	2.84	2.92	3.10
People have the ability to respond and correct problems and errors before they get out of control	3.89	3.84	3.81	4.12	3.80	4.02	3.89	3.67	3.74	3.75
People have the skills they need to resolve workplace safety issues	4.15	4.08	4.09	4.20	4.07	4.24	4.07	3.98	3.97	3.97
Stopping a job because a safety step is missing, is viewed positively by my supervisor	4.55	4.47	4.45	4.62	4.51	4.67	4.56	4.49	4.56	4.53
We have the right tools for the job	3.95	3.68	3.71	4.09	3.80	4.04	3.87	3.73	3.76	3.75
<b>Wildfire Average</b>	4.12	4.12	4.09	4.30	4.08	4.34	4.24	4.24	4.21	4.07
I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them	3.06	3.23	3.10	3.56	3.04	3.53	3.47	3.57	3.36	3.05
I feel comfortable discussing wildfire hazards with my supervisor	4.62	4.56	4.59	4.75	4.64	4.72	4.70	4.67	4.66	4.50
Leaders actively seek out signs of potential wildfire hazards	3.88	3.91	3.79	4.13	3.75	4.09	4.01	4.07	3.98	3.82
My workgroup follows procedures to control workplace and wildfire hazards	4.53	4.45	4.47	4.60	4.51	4.64	4.57	4.49	4.54	4.46
Our management acts quickly to address wildfire hazards	3.98	3.96	3.98	4.10	3.95	4.21	4.05	4.05	4.07	4.02
People in my work group report all wildfire hazards, no matter how minor	4.20	4.20	4.16	4.31	4.13	4.41	4.26	4.23	4.23	3.99
People look for wildfire hazards and risks as work progresses	4.16	4.22	4.04	4.30	4.08	4.37	4.21	4.16	4.15	4.01
Protecting the community from wildfire hazards is clearly a high priority with management	4.37	4.34	4.38	4.49	4.37	4.52	4.46	4.54	4.51	4.47
Wildfire and personal safety concerns are communicated openly	4.33	4.22	4.31	4.46	4.23	4.54	4.41	4.40	4.36	4.31



RESULTS by LOCATION: PG&E

LEGEND

High 4.1+ | Med High 3.65-4.1 | Medium 3.3-3.65 | Low <3.3

	Electric Distribution Operations	Electric Transmission Operations	Asset Risk Management	Electric Operations Major Projects and Programs	Regulatory Compliance and Quality Assurance	Null
	544	372	228	179	169	80
<b>Culture Average</b>	<b>3.99</b>	<b>4.07</b>	<b>4.03</b>	<b>4.08</b>	<b>4.27</b>	<b>3.81</b>
I believe managers apply the same rules for all workers	3.70	3.78	3.74	3.69	3.99	3.38
Information about important events and lessons learned is shared within my work group	4.14	4.29	4.19	4.36	4.43	4.03
Leaders encourage people to ask questions	4.20	4.29	4.23	4.34	4.49	4.08
Managers treat workers with respect	4.02	4.14	4.18	4.18	4.41	3.74
My supervisor makes sure all employee concerns are heard before job decisions are made	4.10	4.23	4.12	4.18	4.29	4.05
My supervisor would use whatever power he/she has to help me out	4.42	4.50	4.41	4.46	4.61	4.16
People in my work group treat each other with respect	4.47	4.49	4.52	4.46	4.65	4.20
People listen to one another; it is rare that someone's views go unheard	3.85	3.88	3.80	3.88	4.11	3.78
People report mistakes they make, even if others do not notice them	3.53	3.63	3.50	3.61	3.81	3.35
The company cares about my opinions	3.43	3.50	3.56	3.66	3.90	3.36
<b>Safety Average</b>	<b>4.09</b>	<b>4.17</b>	<b>3.99</b>	<b>4.16</b>	<b>4.23</b>	<b>3.92</b>
Accidents & incidents are investigated completely	4.16	4.32	4.14	4.38	4.43	3.93
I stop people to point out unsafe behavior when I see it	4.31	4.36	4.18	4.32	4.39	4.19
I take responsibility for the safety of myself and others in my work area	4.77	4.76	4.72	4.78	4.79	4.68
Leaders keep people prepared to intervene when an emergency occurs	3.84	4.00	4.00	4.07	4.24	3.84
Leaders use mistakes and incidents as learning opportunities	4.01	4.22	3.98	4.13	4.27	3.93
Pausing work for hazards and safety concerns is viewed positively	4.34	4.48	4.36	4.53	4.57	4.14
People focus on one task at a time and avoid distractions	3.34	3.22	2.77	3.04	3.24	3.15
People have the ability to respond and correct problems and errors before they get out of control	3.89	3.94	3.65	3.83	3.85	3.55
People have the skills they need to resolve workplace safety issues	4.06	4.12	3.94	4.09	4.18	3.81
Stopping a job because a safety step is missing, is viewed positively by my supervisor	4.46	4.59	4.52	4.68	4.67	4.36
We have the right tools for the job	3.84	3.87	3.66	3.89	3.92	3.58
<b>Wildfire Average</b>	<b>4.01</b>	<b>4.11</b>	<b>4.15</b>	<b>4.23</b>	<b>4.32</b>	<b>3.95</b>
I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them	2.92	2.97	3.39	3.33	3.48	3.03
I feel comfortable discussing wildfire hazards with my supervisor	4.50	4.53	4.60	4.74	4.75	4.31
Leaders actively seek out signs of potential wildfire hazards	3.67	3.83	3.95	3.96	4.18	3.74
My workgroup follows procedures to control workplace and wildfire hazards	4.46	4.49	4.47	4.53	4.66	4.30
Our management acts quickly to address wildfire hazards	3.92	4.11	4.01	4.04	4.14	3.83
People in my work group report all wildfire hazards, no matter how minor	4.01	4.08	4.09	4.17	4.25	3.95
People look for wildfire hazards and risks as work progresses	4.02	4.07	4.02	4.17	4.21	3.93
Protecting the community from wildfire hazards is clearly a high priority with management	4.34	4.49	4.52	4.57	4.64	4.30
Wildfire and personal safety concerns are communicated openly	4.22	4.39	4.34	4.52	4.54	4.21



RESULTS by BUSINESS UNIT: PG&E

LEGEND

High 4.1+ | Med High 3.65-4.1 | Medium 3.3-3.65 | Low <3.3

	Electric Operations	Wildfire Risk	Null
	1,349	210	13
<b>Culture Average</b>	4.05	4.08	3.26
I believe managers apply the same rules for all workers	3.73	3.81	3.15
Information about important events and lessons learned is shared within my work group	4.23	4.28	3.23
Leaders encourage people to ask questions	4.27	4.27	3.38
Managers treat workers with respect	4.12	4.20	3.08
My supervisor makes sure all employee concerns are heard before job decisions are made	4.17	4.12	3.54
My supervisor would use whatever power he/she has to help me out	4.46	4.44	3.69
People in my work group treat each other with respect	4.50	4.47	3.77
People listen to one another; it is rare that someone's views go unheard	3.87	3.93	3.31
People report mistakes they make, even if others do not notice them	3.58	3.64	2.54
The company cares about my opinions	3.54	3.59	2.92
<b>Safety Average</b>	4.12	4.11	3.49
Accidents & incidents are investigated completely	4.25	4.22	3.62
I stop people to point out unsafe behavior when I see it	4.31	4.32	4.08
I take responsibility for the safety of myself and others in my work area	4.75	4.80	4.54
Leaders keep people prepared to intervene when an emergency occurs	3.97	4.01	3.23
Leaders use mistakes and incidents as learning opportunities	4.10	4.09	3.31
Pausing work for hazards and safety concerns is viewed positively	4.42	4.40	3.62
People focus on one task at a time and avoid distractions	3.19	3.07	2.85
People have the ability to respond and correct problems and errors before they get out of control	3.84	3.84	3.23
People have the skills they need to resolve workplace safety issues	4.07	4.03	3.08
Stopping a job because a safety step is missing, is viewed positively by my supervisor	4.55	4.57	3.69
We have the right tools for the job	3.83	3.83	3.15
<b>Wildfire Average</b>	4.09	4.25	3.18
I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them	3.05	3.55	2.46
I feel comfortable discussing wildfire hazards with my supervisor	4.56	4.68	3.31
Leaders actively seek out signs of potential wildfire hazards	3.82	4.03	2.92
My workgroup follows procedures to control workplace and wildfire hazards	4.49	4.51	3.92
Our management acts quickly to address wildfire hazards	4.02	4.00	2.92
People in my work group report all wildfire hazards, no matter how minor	4.05	4.32	3.38
People look for wildfire hazards and risks as work progresses	4.06	4.20	2.77
Protecting the community from wildfire hazards is clearly a high priority with management	4.46	4.48	3.54
Wildfire and personal safety concerns are communicated openly	4.34	4.46	3.38

### 6.1.3 Results by Tenure and Level in the Organization

#### SURVEY RESULTS by TENURE: PG&E

	TENURE					
	OVERALL	0-1 Years	2-5 Years	6-10 Years	10+ Years	Null
	1,737	311	277	271	689	24
<b>Culture Average</b>	4.07	4.38	4.12	3.90	3.94	3.44
I believe managers apply the same rules for all workers	3.77	4.34	3.82	3.53	3.54	2.96
Information about important events and lessons learned is shared within my work group	4.26	4.54	4.34	4.04	4.15	3.67
Leaders encourage people to ask questions	4.28	4.54	4.36	4.14	4.16	3.92
Managers treat workers with respect	4.13	4.55	4.28	3.94	3.96	3.33
My supervisor makes sure all employee concerns are heard before job decisions are made	4.16	4.43	4.19	3.98	4.12	3.79
My supervisor would use whatever power he/she has to help me out	4.44	4.62	4.53	4.33	4.41	3.79
People in my work group treat each other with respect	4.50	4.58	4.51	4.45	4.48	3.71
People listen to one another; it is rare that someone's views go unheard	3.91	4.34	3.94	3.69	3.73	3.29
People report mistakes they make, even if others do not notice them	3.62	3.85	3.59	3.52	3.50	3.04
The company cares about my opinions	3.59	4.01	3.67	3.40	3.35	2.92
<b>Safety Average</b>	4.14	4.30	4.16	3.98	4.07	3.70
Accidents & incidents are investigated completely	4.27	4.45	4.30	4.11	4.18	3.75
I stop people to point out unsafe behavior when I see it	4.33	4.22	4.27	4.25	4.40	4.04
I take responsibility for the safety of myself and others in my work area	4.76	4.70	4.75	4.75	4.79	4.63
Leaders keep people prepared to intervene when an emergency occurs	4.00	4.23	4.13	3.90	3.83	3.46
Leaders use mistakes and incidents as learning opportunities	4.13	4.44	4.19	3.97	3.97	3.42
Pausing work for hazards and safety concerns is viewed positively	4.43	4.61	4.47	4.27	4.37	3.88
People focus on one task at a time and avoid distractions	3.23	3.54	3.14	2.93	3.12	3.08
People have the ability to respond and correct problems and errors before they get out of control	3.87	4.13	3.96	3.63	3.75	3.58
People have the skills they need to resolve workplace safety issues	4.09	4.28	4.12	3.84	4.04	3.50
Stopping a job because a safety step is missing, is viewed positively by my supervisor	4.56	4.64	4.61	4.45	4.52	4.04
We have the right tools for the job	3.88	4.08	3.87	3.68	3.76	3.33
<b>Wildfire Average</b>	4.14	4.31	4.17	4.02	4.04	3.58
I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them	3.15	3.51	3.24	3.01	2.94	2.29
I feel comfortable discussing wildfire hazards with my supervisor	4.57	4.65	4.65	4.51	4.53	4.17
Leaders actively seek out signs of potential wildfire hazards	3.88	4.13	3.98	3.74	3.71	3.21
My workgroup follows procedures to control workplace and wildfire hazards	4.51	4.61	4.51	4.39	4.48	4.04
Our management acts quickly to address wildfire hazards	4.06	4.24	4.01	3.87	3.98	3.29
People in my work group report all wildfire hazards, no matter how minor	4.12	4.21	4.09	4.04	4.03	3.92
People look for wildfire hazards and risks as work progresses	4.10	4.27	4.09	3.97	4.01	3.71
Protecting the community from wildfire hazards is clearly a high priority with management	4.47	4.62	4.50	4.42	4.40	3.88
Wildfire and personal safety concerns are communicated openly	4.38	4.58	4.43	4.23	4.28	3.75

Organizational Level by Job & Tenure | PG&E

LEGEND

High 4.1+ | Med High 3.65-4.1 | Medium 3.3-3.65 | Low <3.3

Organizational Level by Job & Tenure																	
Dire..	Manager/ Superintendent					Supervisor				Individual Contributor-FLE					Null		
	10+ Years	0-1 Years	2-5 Years	6-10 Years	10+ Years	0-1 Years	2-5 Years	6-10 Years	10+ Years	0-1 Years	2-5 Years	6-10 Years	10+ Years	Null	2-5 Years	10+ Years	Null
29	19	17	40	72	17	33	36	115	266	219	188	453	5	6	18	19	
<b>Culture Average</b>	4.23	4.22	4.39	4.04	4.14	4.35	4.25	4.08	4.24	4.40	4.07	3.81	3.83	3.84	4.40	3.47	3.34
I believe managers apply the same rules for all workers	3.79	4.32	4.29	3.90	4.03	4.53	4.12	3.86	4.03	4.35	3.73	3.37	3.35	3.80	4.17	2.83	2.74
Information about important events and lessons learned is shared within my work group	4.45	4.58	4.35	4.03	4.32	4.59	4.48	4.28	4.49	4.55	4.30	3.97	4.04	4.00	4.83	3.67	3.58
Leaders encourage people to ask questions	4.52	4.21	4.65	4.40	4.35	4.59	4.42	4.33	4.47	4.58	4.32	4.03	4.05	4.80	4.83	3.72	3.68
Managers treat workers with respect	4.41	4.37	4.53	4.25	4.40	4.65	4.36	4.08	4.28	4.57	4.24	3.82	3.81	3.80	4.50	3.28	3.21
My supervisor makes sure all employee concerns are heard before job decisions are made	4.28	4.21	4.47	4.20	4.15	4.53	4.45	3.94	4.43	4.45	4.12	3.90	4.04	4.00	4.50	3.72	3.74
My supervisor would use whatever power he/she has to help me out	4.62	4.47	4.53	4.50	4.53	4.88	4.67	4.28	4.61	4.64	4.50	4.29	4.35	4.00	4.67	3.78	3.74
People in my work group treat each other with respect	4.79	4.47	4.94	4.35	4.63	4.59	4.58	4.61	4.60	4.60	4.47	4.44	4.42	3.80	4.67	4.06	3.68
People listen to one another; it is rare that someone's views go unheard	3.86	4.16	4.12	3.68	3.86	4.29	4.00	3.97	3.97	4.36	3.90	3.61	3.64	3.40	4.50	3.78	3.26
People report mistakes they make, even if others do not notice them	3.72	3.58	3.88	3.58	3.43	3.47	3.61	3.75	3.86	3.90	3.57	3.44	3.43	3.20	3.67	3.00	3.00
The company cares about my opinions	3.90	3.79	4.12	3.53	3.75	3.41	3.85	3.67	3.65	4.06	3.60	3.28	3.19	3.60	3.67	2.89	2.74
<b>Safety Average</b>	4.13	4.11	4.30	4.00	4.10	4.18	4.19	4.03	4.33	4.33	4.14	3.95	4.00	4.11	4.29	3.82	3.59
Accidents & incidents are investigated completely	4.14	4.42	4.59	4.23	4.40	4.41	4.30	4.08	4.42	4.47	4.27	4.08	4.09	4.20	4.33	4.28	3.63
I stop people to point out unsafe behavior when I see it	4.66	4.26	4.65	4.23	4.46	4.12	4.33	4.28	4.57	4.23	4.23	4.23	4.33	4.20	4.17	4.17	4.00
I take responsibility for the safety of myself and others in my work area	4.97	4.63	4.88	4.70	4.90	4.94	4.85	4.81	4.83	4.70	4.74	4.75	4.76	4.80	4.33	4.56	4.58
Leaders keep people prepared to intervene when an emergency occurs	4.14	3.89	4.41	4.08	4.07	4.35	4.24	4.08	4.18	4.26	4.07	3.80	3.70	3.80	4.67	3.50	3.37
Leaders use mistakes and incidents as learning opportunities	4.03	4.37	4.47	4.05	4.00	4.18	4.09	4.14	4.33	4.47	4.18	3.92	3.87	3.40	4.50	3.83	3.42
Pausing work for hazards and safety concerns is viewed positively	4.45	4.47	4.65	4.45	4.65	4.35	4.52	4.44	4.61	4.65	4.45	4.18	4.27	4.60	4.33	4.00	3.68
People focus on one task at a time and avoid distractions	2.79	3.11	3.06	2.55	2.85	2.94	2.97	2.61	3.56	3.61	3.16	3.03	3.09	3.80	3.33	2.72	2.89
People have the ability to respond and correct problems and errors before they get out of control	3.66	3.84	3.76	3.53	3.57	3.82	3.88	3.69	4.09	4.18	3.97	3.62	3.70	4.20	4.33	3.61	3.42
People have the skills they need to resolve workplace safety issues	4.24	3.89	4.24	3.88	4.04	4.24	4.03	3.89	4.25	4.31	4.12	3.81	3.99	4.20	4.33	3.72	3.32
Stopping a job because a safety step is missing, is viewed positively by my supervisor	4.66	4.58	4.82	4.50	4.71	4.82	4.88	4.53	4.75	4.65	4.55	4.41	4.44	4.20	4.67	4.17	4.00
We have the right tools for the job	3.76	3.79	3.76	3.80	3.50	3.82	4.00	3.78	4.03	4.12	3.84	3.61	3.74	3.80	4.17	3.44	3.21
<b>Wildfire Average</b>	4.54	4.19	4.35	4.18	4.25	4.34	4.38	4.07	4.31	4.33	4.11	3.96	3.91	3.89	4.39	3.81	3.50
I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them	4.07	3.63	3.71	3.38	3.28	3.59	3.52	3.08	3.22	3.49	3.15	2.89	2.76	2.20	3.50	2.67	2.32
I feel comfortable discussing wildfire hazards with my supervisor	4.97	4.63	4.71	4.60	4.74	4.71	4.94	4.61	4.73	4.66	4.59	4.47	4.44	4.20	4.83	4.17	4.16
Leaders actively seek out signs of potential wildfire hazards	4.38	3.84	4.12	4.15	3.93	4.06	4.24	3.78	4.03	4.17	3.93	3.61	3.55	3.80	4.17	3.78	3.05
My workgroup follows procedures to control workplace and wildfire hazards	4.79	4.42	4.59	4.45	4.61	4.65	4.61	4.56	4.64	4.63	4.48	4.35	4.42	4.00	4.67	4.06	4.05
Our management acts quickly to address wildfire hazards	4.41	4.00	4.12	4.00	4.28	4.24	4.21	3.78	4.28	4.27	3.96	3.85	3.83	4.00	4.50	4.00	3.11
People in my work group report all wildfire hazards, no matter how minor	4.41	4.26	4.18	4.20	4.22	4.12	4.33	4.08	4.39	4.21	4.05	3.98	3.90	4.00	4.17	3.67	3.89
People look for wildfire hazards and risks as work progresses	4.34	4.11	4.29	3.93	4.08	4.47	4.21	3.97	4.33	4.29	4.05	3.97	3.90	4.40	4.50	3.78	3.53
Protecting the community from wildfire hazards is clearly a high priority with management	4.90	4.32	4.82	4.63	4.75	4.59	4.67	4.33	4.65	4.64	4.45	4.37	4.25	4.20	4.50	4.28	3.79
Wildfire and personal safety concerns are communicated openly	4.62	4.47	4.65	4.25	4.40	4.65	4.73	4.44	4.57	4.59	4.36	4.15	4.18	4.20	4.67	3.89	3.63

## 6.2 Management Self-Assessment Results

### 6.2.1 Graph of 2021 Management Self-Assessment: Current Status to 2022 Goal

PG&E Self-Assessment Categories and Questions  
2021 Current Status | 2022 Goal

Categories & Questions	Requirement	Priority	Value	Who We Are
<b>Organizational Sustaining Systems</b>				
Wildfire safety integrated into leader selection and promotion		● Priority	● Value	
Wildfire safety integrated into leader goals and objectives			● Value	● Who We Are
Safety incorporated into position descriptions			● Value	
Training available to frontline leaders		● Priority	● Value	● Who We Are
Training available to frontline workers		● Priority	● Value	
Training requirements for contractors		● Priority	● Value	
Rewards and incentives to support safety			● Value	
<b>Structure and Governance</b>				
Accountable for wildfire safety outcomes				● Who We Are
Accountable for personal safety outcomes			● Value	
Wildfire measures tracked by senior leadership			● Value	● Who We Are
Effectiveness of wildfire measures		● Priority	● Value	
Monitor and adjust strategies to wildfire safety			● Value	
Communication of wildfire safety metrics			● Value	● Who We Are
<b>Safety Enabling Systems</b>				
Investigations using root cause analysis	● Requirement	● Priority		
Quality of event investigations		● Priority		
Results of investigations		● Priority	● Value	
Process for reporting wildfire hazards		● Priority		
Systems to encourage sensitivity to weak signals	● Requirement	● Priority		
Responding to upset conditions			● Value	
Process/structures to create a learning organization		● Priority		
Audits of wildfire hazard activities			● Value	● Who We Are
Use of audit findings and tracking to closure			● Value	● Who We Are



## 6.2.2 2021 Management Self-Assessment and Justification Part 1: Organizational Sustaining Systems

The yellow highlighted cell is where the corporation ranks itself at the time of the self-assessment (May 2021), and the light blue cell is where it expects to be at the end of 2022, if it expects its status to change.

The text in the “Justification” fields below is as it was received from the electrical corporation, presented without revision.

Organizational Sustaining Systems		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
1.1.1 Wildfire safety integrated into leader selection and promotion		Not Considered	Personal and wildfire safety performance are considered in selection/promotion decisions but are not the primary factors	Personal and wildfire safety performance are heavily weighted, primary factors in hiring / promotion decisions	Excellent personal and wildfire safety performance are necessary for advancement; poor safety performance eliminates leader from selection/promotion
Justification	Currently, the specific performance on wildfire safety is not a primary factor for every position. However, overall historical performance is weighted for selection and promotion decisions, which is inclusive of safety goals. In addition, the interview guide utilized by all when conducting a competitive interview includes safety assessment questions and the interviewees provide a candidate rating for “Puts Safety First.” Support documentation provides examples of 3 position descriptions, their job profiles, associated interview guides and the interviewee rating system provided from recruiting.				
1.1.2 Wildfire safety integrated into leader goals and objectives		No annual goals / objectives related to wildfire safety	Goals and objectives focus on only lagging measures for wildfire or personal safety related to wildfire mitigation work	Goals and objectives contain a mix of leading and lagging indicators for wildfire and personal safety related to wildfire mitigation work	Goals and objectives contain a mix of leading and lagging indicators including a focus on the quality of each leader’s visible engagement in and support of wildfire and personal safety programs and initiatives
Justification	There are 8 goal categories PG&E utilizes. One is Wildfire Mitigation and another is Safety. Each organization is responsible for creating a goal and metric within these groups tied to the work they are performing. Of the 654 Supervisors in Electric and Wildfire Risk, 446 (68%) have goals and metrics within the Wildfire Mitigation category and 644 (98%) have goals and metrics within the Safety category.				
1.1.3 Safety incorporated into position descriptions		No mention of safety	Focus is on compliance with rules and dismissal if found out of compliance	Emphasis on more than just compliance with rules, but each employee’s position description includes responsibility to speak up and intervene if unsafe	Emphasis on each person’s role and the expectation and mechanism to hold the organization accountable if

Organizational Sustaining Systems		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
				conditions exist, both for wildfire and personal safety	unsafe conditions exist, both for wildfire and personal safety
<b>Justification</b>	While each position and job profile does not include this, it is engrained in the company Code of Conduct and within the Mission, Vision and Culture Statement. In addition, there are ties to safety and compliance within goals which further outline expectations.				
1.2.1 Training available to frontline leaders	No training available	Job-specific wildfire safety training focused on rules compliance, procedures, and safety systems (e.g., familiarity with wildfire-related job procedures or personal safety related procedures.)	Job-specific wildfire safety training; in addition, wildfire safety training beyond job requirements (e.g., wildfire mitigation strategy and initiatives), and leadership training (giving feedback, accountability, etc.)	All criteria in “value” option are met; In addition, training includes advanced safety topics such as exposure management <sup>31</sup> , and human performance reliability <sup>32</sup>	
<b>Justification</b>	Future state for Wildfire Training is to fully integrate First Line Supervisors into holistic training program providing the knowledge, skills and abilities from job specific to advanced skills with the ability to measure the success of the training.				
1.2.2 Training available to frontline workers	No training available	Job-specific wildfire safety training focused on rules compliance, procedures, and safety systems (e.g., familiarity with wildfire-related job procedures or personal safety related procedures.)	Job-specific wildfire safety training; in addition, wildfire safety training beyond job requirements (e.g., wildfire mitigation strategy) and behavior-based safety training (observing safe behaviors, approaching others, etc.) <sup>33</sup>	All criteria in “value” option are met; in addition, training includes advanced safety topics such as human performance reliability	
<b>Justification</b>	Training enhancements planned to provide advanced skills specific to human performance reliability. Increased rigor on the target audience that requires this training in addition, but not limited to training for journey personnel on hardening of the infrastructure and new equipment being installed to support wildfire efforts.				

<sup>31</sup> Exposure Management Training: here, a training that emphasizes a proactive approach to safety through identifying and controlling exposure for self and others and is foundational for leaders to move beyond the traditional and reactive incident management approach to safety.

<sup>32</sup> Human Performance Reliability: here, the suite of knowledge, skills and capabilities required to anticipate, control, and respond to unplanned issues and errors.

<sup>33</sup> Behavior-Based Safety (BBS): a broad term used to describe programs for improving workplace safety by observing and analyzing employees’ behavior while they work.



Organizational Sustaining Systems		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
1.2.3 Training requirements for contractors		No safety training required	Site or location specific general safety introduction and orientation	Electrical corporation-wide standardized safety training in addition to site-specific orientation	Electrical corporation-wide standardized safety training in addition to site-specific orientation and wildfire hazard awareness training
<b>Justification</b>	Drive Corporate-wide consistency of Safety Training and put controls in place to measure accountability. Continue to improve training to incorporate, ongoing improvements based on lessons learned from field incidents and injuries.				
1.3.1 Rewards and incentives to support safety		No rewards or incentives specific to safety and wildfire safety	Rewards and incentives only focus on lagging indicators such as achieving no injuries or wildfires	Rewards and incentives emphasize lagging indicators for personal and wildfire safety and some leading indicators related to wildfire hazard-mitigation activities	Rewards and incentives focus on leading activities such as reporting wildfire concerns, bringing innovative ideas to reduce wildfire hazards, and approaching others on safety
<b>Justification</b>	Our compensation philosophy ties compensation for base salary increase and Short Term Incentive Plan (STIP) bonus eligibility to performance on goals and demonstration of competencies and behaviors consistent with PG&E's culture and value. STIP is designed to incent and reward eligible employees for performance in core areas that drive our business and is a variable/at-risk compensation. Goals are tied to safety and Wildfire Mitigation categories and our culture statement includes putting safety first.				

### 6.2.3 2021 Management Self-Assessment and Justification Part 2: Governance

The yellow highlighted cell is where the corporation ranks itself at the time of the self-assessment (May 2021), and the light blue cell is where it expects to be at the end of 2022, if it expects its status to change.

The text in the “Justification” fields below is as it was received from the electrical corporation, presented without revision.

Governance		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
2.1.1 Accountable for wildfire safety outcomes	Not defined	Safety Department	Operational leadership <sup>34</sup> and Safety Department	Executive leadership <sup>35</sup> with Safety Department as trusted advisor	
<b>Justification</b>	The CEO and the Executive Leadership team have weekly check-ins on Wildfire safety work. Wildfire Risk accountability tied to CRO who is a direct report to CEO.				
2.1.2 Accountable for personal safety outcomes	Not defined	Safety Department	Operational leadership and Safety Department	Executive leadership with Safety Department as trusted advisor	
<b>Justification</b>	Lean Operating System with Daily reviews happening at all levels in the organization will ensure safety focus.				
2.1.3 Wildfire measures tracked by senior leadership	No wildfire safety objectives	Leading and lagging wildfire safety measures required to be reported for regulatory purposes	Required safety measures for regulatory purposes. Additional leading measures used for wildfire mitigation work that are aligned to actionable initiatives	Required safety measures. Additional leading measures used for wildfire mitigation work that are aligned to actionable initiatives at each level of the organization	
<b>Justification</b>	Leading and Lagging indicators are being developed and refined as the existing set of metrics is reviewed to see if the metrics are driving the right outcomes.				
2.2.1 Effectiveness of wildfire measures	Not effective	Reasonably effective in providing data and trends across company	Highly effective in providing data and trends in critical exposure areas	Highly effective in providing data and critical exposure area trends, and actionable insight	
<b>Justification</b>	Focus of 2022 will be deeper root cause on ignitions.				
2.2.2 Monitor and adjust strategies to wildfire safety	Never	Periodically (at even or uneven intervals; for example, once or twice a year as wildfire season approaches)	Often (at even or uneven intervals; for example, 3-5 times per year) monitors action plans and responds to emerging issues, and developments	Regularly (at even intervals; for example, monthly) monitors action plans and strategies. Conducts	

<sup>34</sup> Operational Leadership: here, levels of management within operations ranging from frontline supervisors (who have direct oversight of employees) to executive level senior operational leaders (e.g., COO).

<sup>35</sup> Executive Leadership: here, the highest level of management in an organization, reports to the CEO.

Governance		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
					real-time strategic problem solving focused on systemic risks <sup>36</sup>
<b>Justification</b>	Metric reviews occur weekly with CEO and senior leadership team, as part of the Wildfire Command Center; these reviews drive adjustment to actions and strategies.				
2.2.3 Communication of wildfire safety measures	Safety measures are not shared	Lagging measures for wildfire outcomes are posted at local/site operations <sup>37</sup>	Lagging and leading measures for wildfire safety are posted and discussed in regular management and supervisor meetings		Lagging and leading measures for wildfire safety are discussed; individual/team contributions to leading measures are highlighted and recognized publicly
<b>Justification</b>	Will take place across every leadership level as part of the Lean Operating System.				

<sup>36</sup> Systemic Risks: here, vulnerabilities that could result in cascading or broad failures across the utility.

<sup>37</sup> Operations: here, the parts of a business that affect the production, distribution, and service necessary for a company to function. For the purposes of this assessment, electrical operations, field services, transmissions, substations, and distribution are considered part of operations, but generation is not.

### 6.2.4 2021 Management Self-Assessment and Justification Part 3: Safety-Enabling Systems

The yellow highlighted cell is where the corporation ranks itself at the time of the self-assessment (May 2021), and the light blue cell is where it expects to be at the end of 2022, if it expects its status to change.

The text in the “Justification” fields below is as it was received from the electrical corporation, presented without revision.

Safety-Enabling Systems		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
3.1.1 Investigations using root cause analysis <sup>38</sup>		Only fatal or serious incidents required to be reported to OSHA <sup>39</sup> or fire incidents required to be reported to CPUC <sup>40</sup>	All incidents required to be reported; in addition, work-related injuries involving days away from work and fire incidents that do not meet CPUC reporting standards	All incidents with the potential to be serious or fatal, including near misses	All high-potential events and near misses. Also, event learning <sup>41</sup> teams evaluate high risk situations <sup>42</sup> for proactive opportunities to reduce exposure
Justification	<ul style="list-style-type: none"> <li>- collected leadership responses and comments to support the ratings</li> <li>- the data indicates that leadership is aware of analysis being performed;</li> <li>- however, data indicates that we're not clear on the type of analysis being performed (e.g., apparent cause vs. root cause)</li> <li>- data also indicates that leadership is not clear why type of events are being analyzed (e.g., SIF and/or incidents)</li> </ul>				

<sup>38</sup> Root Cause Analysis: here, a systematic process for identifying root causes of problems or events and an approach for responding to them.

<sup>39</sup> OSHA Reportable Incidents: here, fatal and extremely serious injuries or illnesses, such as amputation, eye loss, in-patient hospitalization, or fatality, required to be reported to OSHA within defined time periods.

<sup>40</sup> CPUC Reportable Ignition: a fire-related event meeting the following conditions: (1) A self-propagating fire of material other than electrical and/or communication facility, (2) The resulting fire traveled greater than one linear meter from the ignition point, (3) The electrical corporation has knowledge that the fire occurred. Electrical corporations must submit to the CPUC information about this event that is useful in identifying operational and/or environmental trends relevant to the event. (See CPUC Decision 06-04-044 and Resolution E-4184.)

<sup>41</sup> Event Learning: here, an approach to understanding incidents and events that evaluates the entire system leading to an event to better understand the causes of actions. The focus of event learning is primarily on how to alter the system to make it less likely for the factors that caused the event to recur rather than to assign blame or define a single root cause factor.

<sup>42</sup> High Risk Situations: here, work activities or situations that have previously been shown in incident data to be consistent with serious or fatal incidents.

Safety-Enabling Systems		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
3.1.2 Quality of event investigations		A “fix the employee” mentality is commonplace when addressing incidents or other adverse events	Investigations primarily focus on identifying exposure and the root cause of the exposure	Investigations focus on identifying the root cause of the exposure and describing actions to control the exposure	Incidents are regarded as learning events that spur a comprehensive look at culture, processes, and safety systems that led to the event
Justification	<ul style="list-style-type: none"> <li>- the data indicates that leadership is aware of analysis being performed;</li> <li>- however, data indicates that we're not clear on the type of analysis being performed (e.g., apparent cause vs. root cause)</li> <li>- data also indicates that the quality of the analysis can be improved, including the development and execution of corrective actions/mitigation plans</li> </ul>				
3.1.3 Results of investigations		Reported to the regulator if required, but no systemic tracking, corrective actions, or closure/sharing of corrective actions	Corrective actions are tracked and are predominantly focused on rule changes, personal protective equipment, and training	Corrective actions are tracked to closure and include more focus on high value controls; <sup>43</sup> learnings are shared throughout organization	Systemic approach to tracking/closing actions using high-value controls; lessons learned leveraged broadly across organization to effect change and control exposure (e.g., leading to procedural or policy changes throughout organization, where applicable)
Justification	<ul style="list-style-type: none"> <li>- Majority of leadership is aware of corrective actions being tracked via CAP [Corrective Action Program]</li> <li>- leadership acknowledged opportunities to improve how we look at drivers of issues (e.g., apparent cause vs. root cause) and quality of the corrective actions/mitigation plans</li> <li>- some leaders shared that the quality of the analysis and/or ability to execute quality actions can be impacted by financial and/or resource constraints</li> </ul>				
3.2.1 Process for reporting wildfire hazards		No formal process	Process exists to report wildfire hazards but no training or feedback	Process established and communicated widely; there is consistent follow-up to reduce exposure	Process established and communicated for wildfire-hazard reporting; workforce trained and encouraged to report wildfire hazards; results broadly shared across organization to spur learning and exposure reduction
Justification	<ul style="list-style-type: none"> <li>- Process exists to report wildfire hazards</li> <li>- data indicates that not many leaders know about the process and/or know how to report wildfire hazards</li> </ul>				

<sup>43</sup> High Value Controls: here, the hierarchy of controls consists of five layers of defenses used to protect against hazards in the workplace ranging from the most effective (Elimination) to the least effective (personal protective equipment or PPE). The layers are Elimination, Substitution, Engineering, Administrative, and PPE. High value controls are Elimination, Substitution, and Engineering because the effectiveness of the control is not susceptible to human error.

Safety-Enabling Systems		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
3.3.1 Systems to encourage sensitivity to weak signals <sup>44</sup>		No formal process or structure	Workforce is encouraged to report wildfire hazards as they see them	System established for reporting and mitigating wildfire hazards; leaders encourage reporting of weak signals	A cross-functional team is established to proactively look for, track, and mitigate wildfire hazards and potential black swan <sup>45</sup> situations
Justification	- Workforce is encouraged to report wildfire hazards as it sees them - however, it appears the communication is not effective as indicated with the data/self-assessment				
3.3.2 Responding to upset conditions <sup>46</sup>		No formal training or preparation	Common upset conditions have been identified and response protocols are reviewed periodically	Simulations and drills <sup>47</sup> are conducted regularly to prepare the workforce	Simulations and drills are conducted regularly to practice responses to upset conditions and leaders have instilled a “what could go wrong?” mentality
Justification	Emergency response activities are managed under the Incident Command System (ICS) which allows employees from multiple departments and outside agencies to work together toward a common goal utilizing a common management structure and commonly understood terminology. ICS is scalable and can be utilized to respond to everything from small upsets to system-wide events. See support documentation that provides the relationship of all emergency command centers. Also provided support document showing the participating organizations which is just about everybody.				
3.3.3 Process/structures to create a learning organization <sup>48</sup>		Few processes, training or structures have been established for sharing safety-related lessons learned across the organization	Have implemented a knowledge-management system for sharing safety-related best practices and incidents throughout the organization	All criteria met in “priority” option, plus processes exist for systematically using the knowledge-management system and implementing safety-related best practices	All criteria met in “value” option, plus these processes for tapping best practices in knowledge-management system are used routinely and by nearly everyone

<sup>44</sup> Weak Signal: here, an indicator of a potentially emerging issue that may become significant in the future.

<sup>45</sup> Black Swan: here, unpredictable events that are beyond what is normally expected and have potentially severe consequences.

<sup>46</sup> Upset Conditions: here, interruptions in the regular running of work processes or other planned activity.

<sup>47</sup> Drills: here, coordinated, supervised activities designed to test work team responses to various planned upset conditions.

<sup>48</sup> Learning Organization: here, an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.



Safety-Enabling Systems		Rating Levels			
		(1) Requirement	(2) Priority	(3) Value	(4) Who we are
<b>Justification</b>	The company performs a large number of safety observations and utilizes the SafetyNet tool to record these and produce reports. The SafetyNet tool includes a Wildfire Mitigation checklist and has the ability to designate observed Best Practices. A Best Practices report is distributed to department safety leaders and posted online where it can be reviewed by all employees. The company formally investigates all SIF incidents utilizing either Apparent Cause Evaluations or Root Cause Evaluations depending on incident severity. An initial communication is shared for all SIF incidents immediately following the event and is followed by a final communication to share root and direct causes and corrective actions. The April 2021 Best Practices report that was distributed to safety leaders is included in support documentation for 3.3.3. That report is distributed by the SafetyNet team using e-mail one or two days following the end of each month.				
3.4.1 Audits of wildfire-hazard activities	No formal self-audits conducted	Site-specific self-audits required; internal audits occur only after an incident has occurred	Site-specific self-audits required; internal audits occur based on wildfire risk present	Systemic and rigorous self, independent, and internal audits conducted; used for alignment, calibration and learning	
<b>Justification</b>	A Corporate Safety Audit Program was established to assess and monitor that necessary controls are in place and functioning to assure conformance with applicable occupational health and safety requirements and minimize risks to the enterprise (SAFE-4501S). The program started in Q2 2021 and operating LOBs was divided into audible units with defined audit frequency based on inherent health and safety risks. The Corporate Safety Audit will assess auditable unit for compliance with Leadership & Engagement, MOC and Safety Standards, including applicable California OSHA regulations and leading practice. The Corporate Safety Audit Program is within EHS. It is being managed by EHS – Safety Assurance Group. The SAFE-4501S outlines the management of the audit program.				
3.4.2 Use of audit findings and tracking to closure	No formal tracking mechanism	Self-tracking of closures; no verification	Audit findings tracked and verified to closure	Audits tracked, implementations verified to closure, and effectiveness validated.	
<b>Justification</b>	Action plans to address audit findings and recommendations are tracked and monitored to closure using Excel-based Corp Safety Audit Action Tracker. Closed action items are verified for effectiveness in the next audit cycle. The Corporate Safety Audit Program was initiated in March 2021. The first safety audit was conducted at Colusa Generating Station. We are still waiting for their action plan. They were given 60 business days to develop and submit their action plan from the receipt of the final report.				

### 6.2.5 Summary Plan for the Following Year

The text in the table below the headings is as it was received from the electrical corporation, presented without revision.

A. Action/Activity	B. Deadline	C. Self-Assessment Reference(s). Indicate which question(s) this activity links to.
Changes to our selection process could also include individual goal review, i.e., wildfire safety performance questions, and weigh into selection/promotion decisions.	12/31/2022	1.1.1
With the creation of the Wildfire Risk organization, there is greater visibility into leadership engagement and support of wildfire safety programs and initiatives, which could lead to a future response of "4" in 2022.	12/31/2022	1.1.2
Changes to job architecture to emphasize the job/position-specific responsibilities for both wildfire and personal safety could lead to a future response of "4" in 2022.	12/31/2022	1.1.3
Improve our communication plan to educate the broader organization regarding what events are being investigated and the type of analysis being performed. Develop a periodic check-in to communicate to wider organization regarding key investigation processes and the importance of performing analysis to prevent adverse events. Develop a cadence to train field personnel on how to report all incidents - injury and/or fire related.	12/31/2022	3.1.1
Improve our investigation processes related to injury and/or fire incidents. Revisit approach with leadership to confirm if leaders want to perform root-cause analysis for all types of incident investigations. Currently, we perform root-cause analysis for SIF actuals and apparent-cause for Serious Injury Fatality (SIF) potentials and non-SIF incidents. We typically perform apparent-cause analysis for Notice of Violations, self-reports, and event analysis reports. We will perform additional root-cause analysis depending on the severity of the event and/or if requested. Performing root cause analysis for all incidents will require an increase of resources to perform the work and Subject Matter Experts (SME) to devote time to commit/drive improvements based on the outcome of the root-cause analysis.	12/31/2022	3.1.2
Improve the Corrective Action Program (CAP) by improving user experience, emphasize ownership and timely/quality closure of CAPs, and allocate time to leverage caps and drive improvements (e.g., controls, processes, and procedures).	12/31/2022	3.1.3

A. Action/Activity	B. Deadline	C. Self-Assessment Reference(s). Indicate which question(s) this activity links to.
Improve outreach and training for field personnel throughout the year so they are aware of the process to report wildfire hazards. Work with HR to include training as an annual refresher. Improve fire-related reporting and tracking, including sharing observations and findings regularly with field personnel.	12/31/2022	3.2.1
Improve outreach and training for field personnel throughout the year so they are aware of the process to report wildfire hazards. Work with HR to include training as an annual refresher. Improve fire-related reporting and tracking, including sharing observations and findings regularly with field personnel.	12/31/2022	3.3.1
The future state will be achieved by executing the 2022-2025 Corporate Safety Audit plan. In addition, annual review of the audit execution will be performed to ensure compliance to SAFE-4501S and delivering quality insights and recommendations to the organization.	12/31/2022	3.4.1
Improve the action tracker to migrate into integrated digital platform with robust audit program, notification and monitoring capability.	12/31/2022	3.4.2

## 6.3 Safety Culture Objectives

The text in the tables below, other than the instructions and headings, is as it was received from the electrical corporation, presented without revision.

### Instructions

Provide a description of the electrical corporation’s objectives with respect to safety culture, over the next 12 months and over the next 3 years.

#### 6.3.1 Safety Culture Objectives for the Next 12 Months

A. Objective	B. Progress metrics or cultural indicators, if applicable, used to track progress against this objective	C. Target for 12 months from submission	D. Description of how this objective will reduce wildfire risk to the public or risk to employees conducting wildfire mitigation work
<p>Overview: PG&amp;E’s 2025 Workforce Safety Strategy is a 5-year plan to improve safety systems and build a strong safety culture as a foundation to protect the safety of the public and our workforce. In addition to the Strategy, PG&amp;E has implemented a new organizational design, which facilitates collaboration within PG&amp;E and with our communities. Lean principles are in the process of being implemented and will facilitate the raising of issues, increasing collaboration, and a focus on problem-solving.</p> <p>Over the next 12 months, PG&amp;E is developing eleven critical safety standards (fall protection, control of hazardous energy, etc.) which set the standard requirements when performing high-tasks [sic], including strengthening the selection, management, and oversight of contractors. The development of the Health and Safety Management System includes implementation of a Leadership and Engagement Standard, revising the safety leadership training course,</p>	<p>Implementation indicators; reduction in serious injuries and fatalities</p>	<p>Implementation of the 2021 Plan</p>	<p>Sets the expectation, and provides the tools and a safe environment, to raise issues and to put safety above everything else, every time.</p>

safety audits, and increasing officers and directors time in the field having informal conversations with employees.			
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### 6.3.2 Safety Culture Objectives for the Next 3 Years

A. Objective	B. Progress metrics or cultural indicators, if applicable, used to track progress against this objective	C. Target for 12 months from submission	D. Description of how this objective will reduce wildfire risk to the public or risk to employees conducting wildfire mitigation work
Continued implementation of the 5-year Workforce Safety Strategy	The goals for the 2025 Workforce Safety Strategy include Culture survey results in the first quartile, elimination of fatalities and DART results in best quartiles	Improved NSC Safety Barometer percentile score	Continue to build the foundation in which safety is above everything else, every time.

## 6.4 Lessons Learned

The text in the table below, other than the instructions and headings, is as it was received from the electrical corporation, presented without revision.

### Instructions

Describe how the electrical corporation's objectives and priorities with respect to safety culture have evolved over the past year. Outline any major themes and lessons learned over the past 12 months and subsequent actions taken. If you have not completed a safety culture assessment in over three years, consider your safety culture as it exists today and describe the major themes that exist today.

#### 6.4.1 Lessons Learned Since Most Recent Safety Culture Assessment

A. Major Themes or Lessons Learned	B. Actions Taken
Increase sharing between employee teams (Grassroots)	EHS is leading an initiative to increase collaboration and establish a cadence of meetings with Grassroots Leads to share lessons and establish relationships
Increase safety presence in new employee orientation	Revising course to emphasize safety is above everything else, every time.



## 7. Glossary of Terms

Term	Definition
Behavior-Based Safety (BBS)	A broad term used to describe programs for improving workplace safety by observing and analyzing employees' behavior while they work.
Black Swan	Unpredictable events that are beyond what is normally expected and have potentially severe consequences.
CPUC Reportable Ignition	A fire-related event meeting the following conditions: (1) A self-propagating fire of material other than electrical and/or communication facility, (2) The resulting fire traveled greater than one linear meter from the ignition point, (3) The electrical corporation has knowledge that the fire occurred. Electrical corporations must submit to the CPUC information about this event that is useful in identifying operational and/or environmental trends relevant to the event. (See CPUC Decision 06-04-044 and Resolution E-4184.)
Drills	Coordinated, supervised activities designed to test work team responses to various planned upset conditions.
Event Learning	An approach to understanding incidents and events that evaluates the entire system leading to an event to better understand the causes of actions. The focus of event learning is primarily on how to alter the system to make it less likely for the factors that caused the event to recur rather than to assign blame or define a single root cause factor.
Executive Leadership	The highest level of management in an organization, reports to the CEO.
Exposure	A state of vulnerability to injury that exists when a person comes in contact with a hazard. Exposure reduction or exposure control results from separating the person from the hazard and protecting the person from the vulnerability raised by the hazard (for example, by wearing protective equipment).
Exposure Management Training	A training that emphasizes a proactive approach to safety through identifying and controlling exposure for self and others and is foundational for leaders to move beyond the traditional and reactive incident management approach to safety.
Failsafe	A system or plan that comes into operation in the event of something going wrong or that is there to prevent such an occurrence.

Term	Definition
Frontline Supervisors	The first level of leadership that has direct oversight of employees within operational units of the organization.
High Risk Situations	Work activities or situations that have previously been shown in incident data to be consistent with serious or fatal incidents.
High Value Controls	The hierarchy of controls consists of five layers of defenses used to protect against hazards in the workplace ranging from the most effective (Elimination) to the least effective (personal protective equipment or PPE). The layers are Elimination, Substitution, Engineering, Administrative, and PPE. High value controls are Elimination, Substitution, and Engineering because the effectiveness of the control is not susceptible to human error.
Human Performance Reliability	The suite of knowledge, skills and capabilities required to anticipate, control, and respond to unplanned issues and error.
Incident	An unplanned, undesired event that adversely affects normal operations.
Individual Contributor	An employee who is not in a management position or has any employees directly reporting to them.
IOU	Investor-owned utility.
ITO	Independent transmission operator.
Lagging Indicator	An outcome or output measure that is backward-looking, describing a past event.
Leading Indicator	An input measure that is predictive of a future event.
Learning Organization	An organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.
Likert Scale	A rating system commonly used in questionnaires and survey research to measure people's attitudes, perceptions, and opinions.
Near Miss	An unplanned event that did not result in injury, illness, or damage, but had the potential to do so.

Term	Definition
Operations	The parts of a business that affect the production, distribution, and service necessary for a company to function. For the purposes of this assessment, electrical operations, field services, transmissions, substations, and distribution are considered part of operations, but generation is not.
Operational Leadership	Levels of management within operations ranging from frontline supervisors (who have direct oversight of employees) to executive level senior operational leaders (e.g., COO).
OSHA Reportable Incidents	Fatal and extremely serious injuries or illnesses, such as amputation, eye loss, in-patient hospitalization, or fatality, required to be reported to OSHA within defined time periods. "OSHA" stands for the Occupational Safety and Health Administration of the United States Department of Labor.
Root Cause Analysis	A systematic process for identifying root causes of problems or events and an approach for responding to them.
SMJUs	Small and multi-jurisdictional utilities.
Systemic Risk	Vulnerabilities that could result in cascading or broad failures across the utility.
Upset Conditions	Interruptions in the regular running of work processes or other planned activity.
Weak Signal	An indicator of a potentially emerging issue that may become significant in the future.

## 8. Other Attachments

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### 8.1 Written Comments from PG&E

Following are the written comments from PG&E dated September 8, 2021, "Re: Draft Safety Culture Assessment Report for Pacific Gas and Electric Company."



Francisco Benavides  
Senior Vice President  
Chief Safety Officer

77 Beale Street  
San Francisco, CA 94105

September 8, 2021

Ms. Lucy Morgans  
Acting Program Manager, Safety Policy Division  
Office of Energy Infrastructure Safety  
715 P Street, 20th Floor  
Sacramento, California 95814

Re: Draft Safety Culture Assessment Report for Pacific Gas and Electric Company

Dear Ms. Morgans:

Thank you for the opportunity to comment on the draft Safety Culture Assessment report (“SCA”) prepared by DEKRA Services, Inc. (“DEKRA”) on behalf of the Office of Energy Infrastructure Safety (“OEIS”). Pacific Gas and Electric Company (“PG&E” or the “Company”) appreciates the work and analysis that went into the report, agrees with much of it, and believes that it will make positive contributions to PG&E’s safety culture. PG&E also believes that the report could provide a more complete picture of PG&E’s safety culture and initiatives. In particular, PG&E believes that the report would benefit from incorporating additional information on three topics: (i) implementation of PG&E’s new Lean Operating System (“Lean”); (ii) the recent installation of new leadership at PG&E; and (iii) implementation of PG&E’s 2025 Workforce Safety Strategy. PG&E addresses each of these topics below.

### **PG&E’s Lean Operating System**

PG&E recently began implementing Lean, an important initiative that is designed and expected to significantly enhance safety culture. Lean is a holistic operating system focused on breaking down, on a daily basis, the sort of silos mentioned in the draft SCA, and driving behavioral and cultural change. Lean looks at employees as a key asset in improving the performance of the system closest to where the work takes place. Lean is improving safety culture and operational outcomes by providing clear visibility into performance as measured by PG&E’s most important metrics, creating a daily dialogue about results, and reinforcing a consistent problem-solving approach to rapidly address issues and continuously improve operations. Lean emphasizes four critical elements:

- **Visual Management**: Dashboards and visual indicators that provide visibility into performance based on critical metrics across safety, customer, delivery, and quality to identify exceptions and key drivers.
- **Operating Reviews**: Regular review of visual management to understand the status of performance, drive actions, and confirm effective countermeasures. The lines of business have daily operating reviews with members of functional teams across all levels of the organization.

- Problem Solving: A standard, disciplined approach to problem solving at each level of the organization that targets the root causes of issues.
- Standard Work: An emphasis on establishing consistent ways of working across the Company, both geographically and across commodities, for the purpose of implementing sustained change.

Lean is helping PG&E standardize best safety and other practices across the Company. Through Lean, PG&E is holding its functional organizations more accountable for performance. PG&E's functional organizations are benefitting from dashboards on safety, quality, customer service, and delivery broken out at the regional and sub-region level. This additional granularity for performance evaluation helps align functional and regional teams, encourages cross-functional collaboration, and reinforces shared accountability, while also improving and providing consistency for visual management across every function.

The Operating Review is a key tenet of Lean that actively mitigates organizational and hierarchical silos—an issue noted in the draft SCA—common in a functional structure by proactively facilitating collaboration and responsiveness between cross-functional work groups. Teams engage in a standardized rhythm of action-oriented problem solving that leads to more clearly defined priorities, detailed action plans, and more predictable performance and safety outcomes. Lean emphasizes rapid responses to emerging issues by standardizing a framework where employees closest to the work identify problems, propose solutions, and drive change. The daily Operating Reviews include (i) discussions around what happened in the last 24-hour period and is expected to happen in the next 24-hour period; (ii) processes to review key performance indicators; (iii) visibility and understanding of performance gaps; (iv) a process to collaborate and escalate to the next level; and (v) employee collaboration, engagement and recognition.

This framework also supports management by giving leaders greater visibility and the tools to develop individual ownership and accountability. PG&E is moving from the historical norm, where work processes were delegated by leadership with an emphasis on top-down auditing to monitor outcomes, to the Lean approach, where change is driven by empowered employees prioritizing continuous improvement bottom-up, top-down, and cross-functionally. Operating Reviews serve as the daily heartbeat of collaboration throughout the Company, bringing together new business connections, engineering, construction, customer service, communications, local public affairs, and other support functions to break down silos, give visibility into issues across teams, and create cross-functional plans for resolving challenging problems.

Additionally, under the Lean framework, the Chief Operating Officer (“COO”) holds weekly incident reviews with over 50 personnel in attendance to review the previous week’s safety incidents, to discuss actions to prevent recurrence, and to discuss support and assistance if needed. Lean also involves a Weekly Operating Review for workforce safety with the executive officer team (including the Chief Executive Officer (“CEO”) and other senior executives). The purpose of these weekly meetings is to review the performance of top key progress indicators (serious injuries and fatalities (“SIF”) actuals, SIF potentials, SIF investigations, SIF corrective actions, and the Days Away, Restricted, or Transferred (“DART”) rate), and action plans. Additionally, a Daily Safety Report is sent to every employee that includes a safety message and



any safety incidents from the prior day. This provides a safety message and awareness to the incidents occurring at the Company.

We have attached as Exhibit 1 a July 2021 overview of Lean, which provides a more summary description of the program.

Because Lean is a critical and ongoing initiative, PG&E believes that the SCA would benefit from discussing Lean and its important implications for breaking down silos and enhancing PG&E's safety culture.

### **PG&E's New Leadership**

The draft SCA aptly observes that “[t]he first element necessary for creating a robust culture for personal and wildfire safety is leadership,” and that “leadership needs to act as one unit to create the necessary momentum for sustainable change.”<sup>1</sup> The draft SCA also correctly notes that “[i]t takes years to change an organization’s culture and it is impossible to improve everything at once.”<sup>2</sup> In this vein, PG&E believes that the SCA would set a more accurate baseline for measuring safety culture progress by acknowledging the recent substantial changes in leadership at PG&E, and the fact that it will take time for the direction, culture, and tone being set by the new team to unify the organization at all levels.

Following PG&E's emergence from Chapter 11 in 2020, there is a new PG&E Corporation CEO (Patti Poppe), a new senior leadership team, and substantially new Boards of Directors at PG&E and PG&E Corporation. In the first half of 2021, 13 new leaders were hired from outside the Company to bring new perspectives and talent. PG&E has replaced the former role of Utility president with three executive officers of equal level, each with his or her own functional specialization. The new equivalent roles replacing the Utility president include an Executive Vice President (“EVP”) and Chief Customer Officer, an EVP of Operations and COO, and an EVP of Engineering, Planning, and Strategy. Through these and other officers, all lines of business report directly to Ms. Poppe. PG&E appointed these three distinct roles to improve focus on the daily delivery of PG&E's commitments to customers and communities—including, most critically, safety.

PG&E has been fortunate to have attracted talented leaders with the necessary experience and diverse skillsets to hit the ground running. And notably, the SCA observes that the recent leadership changes already have begun positively impacting safety culture. As the SCA notes, “[O]ne participant on the supervisor call indicated that communication channels (e.g., up and down the corporation) are improving under the leadership of new PG&E [Corporation] CEO Patti Poppe.”<sup>3</sup> Nevertheless, any new leadership team requires time to settle in, to formulate core policies and directions for the enterprise, and to implement sustainable changes.

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<sup>1</sup> Draft SCA at 17.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.* at 11.

PG&E believes that the SCA would present a more accurate baseline picture by noting the recent changes in leadership, and the reality that it necessarily will take time for the new team to effect lasting change in PG&E's safety culture.

### **PG&E's 2025 Workforce Safety Strategy**

The draft SCA states that there is "not a project plan for implementation [in 2022] with deadlines," and that "execution of the 2025 Workforce Safety Culture strategy" may not be "a high priority for PG&E leadership."<sup>4</sup> PG&E respectfully disagrees with such statements.

PG&E's 2025 Workforce Safety Strategy was developed in conjunction with every line of business, the unions, and executives, and was reviewed by the Boards of Directors. It was over a four-month process and the strategy continues to be updated.

PG&E's Enterprise, Health & Safety ("EHS") group holds monthly meetings in which each member of the Chief Safety Officer's team presents an update on his or her key priorities for the year, including projects associated with the 2025 Workforce Safety Strategy. Such updates are both verbal and written, include critical initiatives, detail milestones and their status, and discuss whether assistance is needed.

Additionally, PG&E has a Safety Technical Council, chaired by PG&E's Chief Safety Officer, that meets every two weeks. The discussions frequently pertain to the priorities highlighted in the 2025 Workforce Safety Strategy, and the progress of the strategy. All the Company lines of business are represented on and actively participate in this council. The lines of business therefore are informed and aware, and coordinate closely so as not to take a "disjointed and fragmented approach" as stated in the draft SCA.<sup>5</sup>

Further, PG&E is actively planning for continued implementation of the 2025 Workforce Safety Strategy during 2022, and has been for some time. PG&E is following the Company's planning calendar, and also is doing detail planning within a cross-functional team of safety practitioners where all the lines of business are represented. This team has met five times already in 2021, and has prepared draft plans with specific milestones, due dates, and action owners for all 2022 priorities. This work will continue being refined over the coming weeks.

As further evidence of the foregoing, attached please find the following documents, which PG&E offers by way of example only:

- Ex. 2: Materials for PG&E's August 2, 2021 EHS 2022 planning meeting, which include discussions of, among other things (i) PG&E's Health & Safety Management System; (ii) safety tailboard enhancements to "[c]ollaboratively improve quality of pre-job tailboards for overall delivery, content, hazard identification and mitigations through consistent process across all lines of businesses utilizing a technology platform to document, track and trend"; (iii) safety leadership

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<sup>4</sup> Draft SCA at 1, 18.

<sup>5</sup> *Id.* at 13.

development to “[d]evelop an impactful safety leadership training”; and (iv) key 2021 and 2022 milestones and due dates for the foregoing.

Ex. 3: The Safety Technical Council’s charter document, which describes its background, membership, mission, vision, objectives, tactics, cadence, and decision-making.

PG&E urges DEKRA and the OEIS to revise the draft SCA in light of the foregoing information, including but not limited to Recommendations 4.1.2 and 4.1.3. PG&E does not disagree with those recommendations as such, but PG&E understands the purpose of the SCA recommendations to be to recommend changes. PG&E is effectively already implementing the substance of Recommendations 4.1.2 and 4.1.3.

\* \* \*

Thank you again for the opportunity to comment. If we can provide further information, please do not hesitate to contact me.

Sincerely,

*/s/ Francisco Benavides*

Senior Vice President and Chief Safety Officer  
PG&E Corporation  
Pacific Gas and Electric Company

cc: Sara Moore, Office of Energy Infrastructure Safety  
Michael Mangan, DEKRA

## **EXHIBIT 1**

# PG&E's LEAN OPERATING SYSTEM

## Lean Overview

July 2021



# Purpose of these Materials



PG&E is transitioning to a new way of working: adopting a Lean Operating System designed to drive more effective and responsive decision-making, reduce the human struggle many of us face in our day-to-day work, and deliver better outcomes for our customers.



This presentation was created to share the latest information about the Lean Operating System to help prepare leaders to communicate with their teams about the Lean implementation at PG&E.



## **Your Role as a Leader:**

Use this presentation to build understanding within your team during a staff meeting, Tailboard, or huddle.

Please note that these materials do not replace training. More specific content on the 4 Basic Plays and how to effectively implement Lean with your team will be provided in training.



# What Is Lean?

Lean is an approach to our work designed to drive more effective and responsive decision-making, reduce obstacles that many of us face in our day-to-day work, and deliver better outcomes for our customers.



*Leaders "go see" the work, actively listen, and help remove barriers.*

*“And....it will eliminate the human struggle associated with poor, complex or too many processes.”*

*- Patti Poppe*

# Why Lean - Why Now?

*Our customers and regulators expect and deserve major change in how PG&E approaches its work*

- Too many safety issues
- Too many errors due to lack of process adherence
- We must improve our routine “clear sky” work, not only our emergency response
- We’ve seen the benefits in the limited application of Lean in pockets of our work
- Our approach needs to be integrated: one PG&E; one purpose, one mission, one team, one system





# How will this help us?

*Lean will support a way of working that leads to delivering predictable outcomes that customers value*

## Lean will also allow us to:

- Keep it simple!
- Shorten meetings that focus on the daily work
- Eliminate bureaucracy
- Empower our workforce
- Support problem solving
- Improve transparency, clarity, and alignment of work across disciplines
- Deliver an organized and efficient cadence of meetings to support coworkers



# How will we achieve our goal?

This is not the “*flavor of the month or year*” – and it’s not another initiative that takes time from your work. This is HOW we do our work. It is an approach that will support the work we do, but in a way that allows for more alignment and transparency between teams – to minimize errors and reduce waste.

## A New Way of Thinking

- The customer is at the core of everything we do.
- Move from doing well on your own to working well across disciplines.
- Frontline workers know customer impacts best – enable workgroups to solve problems and make decisions that directly impact customer trust and safety
- Leaders "go see" the work, actively listen and help remove barriers
- Care for each other and the most vulnerable; we are "our brothers' and sisters' keepers"

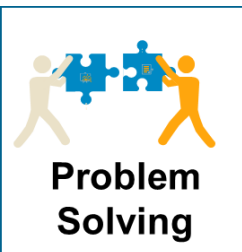
# Our Clear Sky Playbook consists of 4 Basic Plays



Being able to see, at a glance, how we are performing against the most important metrics across safety, customer, delivery and quality using real time data



Brief, focused reviews to identify and address issues and barriers to getting the right work done—involve the people closest to the work in decision-making. These are done daily, weekly and monthly.



Resolving issues and negative trends that impede performance as soon as they are flagged by the people closest to the work.

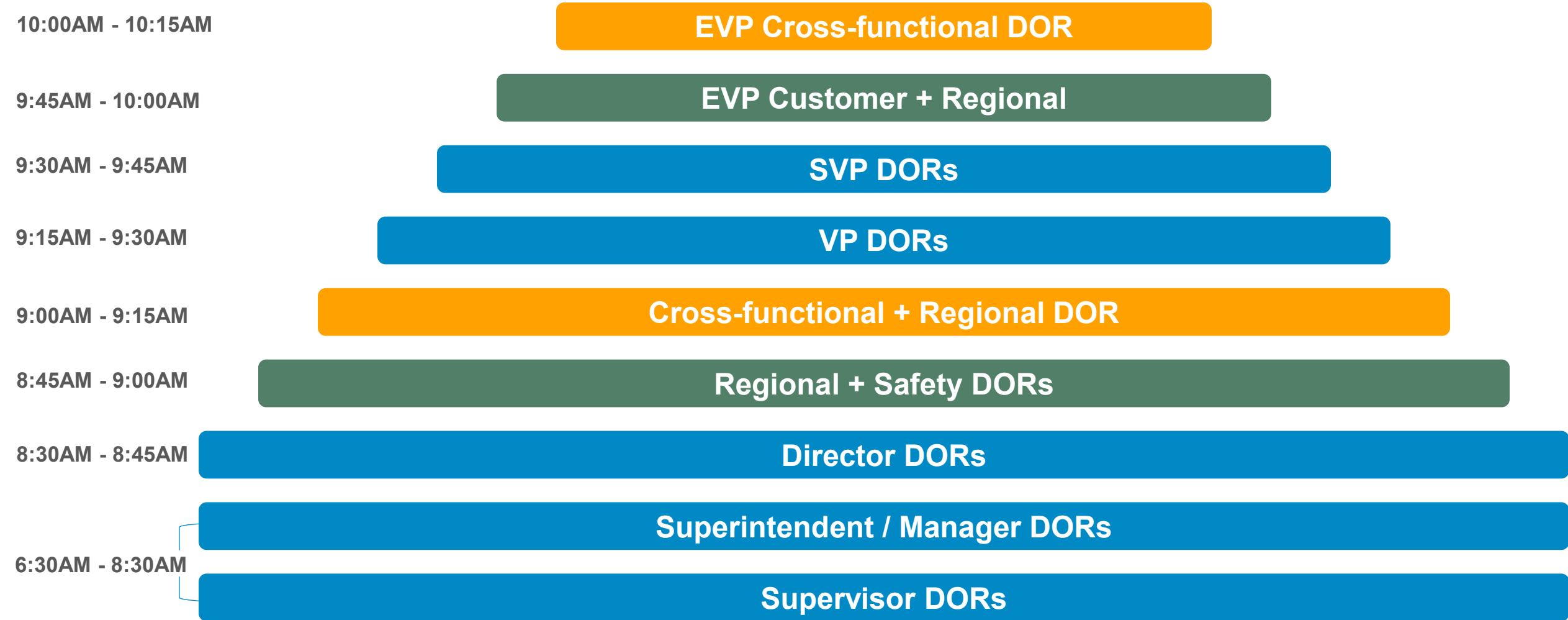


Standardizing effective work processes and best practices so we can continue to improve.



# Example Daily Operating Review Schedule – What might it look like?

*Illustrative Only – schedule still in development*



**NOTE:** This image illustrates how DORs might progress over the course of a business day. Our intent is to use existing meeting structures, beginning with morning tailboards, to escalate critical information for daily confirmation of business results and efficient resolution when issues arise. The proposed DOR structure will loosely follow the existing hierarchy - with frontline operations teams typically meeting early, as they do today, with an emphasis on safety, operations, and customer support.





# Lean Implementation High-Level Timeline

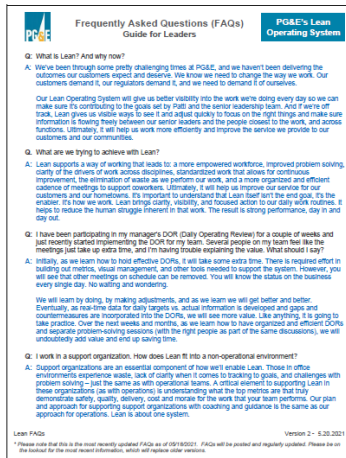
	Q1 2021	Q2 2021	Q3 2021	Q4 2021
<b>Training</b>	<ul style="list-style-type: none"><li>◆ EVPs, SVPs, and VPs</li></ul>	<ul style="list-style-type: none"><li>◆ Lean Online Training available to all coworkers (June)</li><li>◆ On the Job Training through participation in Daily Operating Reviews (DORs)</li></ul>	<ul style="list-style-type: none"><li>◆ Sr. Directors and Directors</li></ul>	<ul style="list-style-type: none"><li>◆ Manager and Supervisors</li></ul>
<b>Targeted Implementation of the 4 Plays</b>	<ul style="list-style-type: none"><li>◆ First two plays launched - Visual Management and Operating Reviews</li></ul>		<ul style="list-style-type: none"><li>◆ Second two plays launched - Problem Solving and Standard Work</li></ul>	
<b>Targeted Implementation of Daily Operating Reviews (DORs)</b>	<ul style="list-style-type: none"><li>◆ Wildfire Management</li></ul>		<ul style="list-style-type: none"><li>◆ Implementation of Daily Operating Review (DOR) Structure by Line of Business</li></ul>	<ul style="list-style-type: none"><li>◆ Electric Operations</li><li>◆ Customer Care</li></ul>
<b>Command Centers</b>	<ul style="list-style-type: none"><li>◆ Wildfire Command Center</li></ul>	<ul style="list-style-type: none"><li>◆ Central Command Center</li></ul>		<ul style="list-style-type: none"><li>◆ 5 Regional Command Centers</li><li>◆ Sierra Regional Command Center (Pilot)</li></ul>



# Want to Learn More? Lean Resources

## What You Need to Know About Lean site

Available resources include:



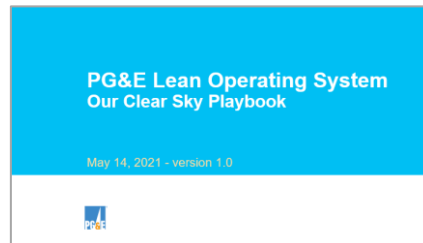
### FAQs

*A living document that is continuously updated with new questions, based on feedback received from our coworkers*



### Videos & Articles

*Videos of Operating Review and Articles on various Lean topics*



### Clear Sky Playbook

*Our guide to implementing Lean at PG&E*

## Lean Training and Learning Materials

Available resources include:



### Lean Reading List

*Suggested books for those interested in learning the history and benefits of Lean*



### "How To" Guides

*Quick start guides to help you get started implementing the 4 Basic Plays with your team*



Use the link on the PGE@Work Homepage

**Still have questions? Contact us at [LeanTeam@pge.com](mailto:LeanTeam@pge.com)**



# APPENDIX

# Visual Management

## WHAT IS IT?

Visual Management is the use of visual controls to manage business results.



## WHY USE IT?

- Makes performance visual
- Helps us understand when we have problems
- Provides an opportunity to adjust when we're off target



## EXPECTATIONS

- Accessible to the team
- Clear (1:3:10 Rule)
- Target Driven
- Controllable by the Team



## REQUIREMENTS

- It is visual
- It tells a story
- It is transparent and shows problems
- It helps us adjust when we are off target



# Operating Review (Daily, Weekly, Monthly)

## WHAT IS IT?

Regular review of visual management to understand the status of performance, drive actions, and confirm effective countermeasures.



## WHY USE IT?

- Ownership and Empowerment
- Review KPIs
- Visibility of performance gaps
- Collaborate, escalate and drive actions
- Confirm countermeasures taken are effective



## EXPECTATIONS

- Start and end on time
- Review by exception
- No problem solving



## REQUIREMENTS

- Engagement at all levels
- Transparency, accuracy, up to date data
- Clear targets, real time data
- No blame culture
- Leadership cadence and follow up process



# Problem Solving

## WHAT IS IT?

A methodology to define a problem, determine the cause, identify and prioritize countermeasures, implement the countermeasures, and follow up to ensure expected results.



## WHY USE IT?

- Avoid working on the same problem multiple times by addressing root causes and not symptoms



## EXPECTATIONS

- Prioritize problems
- Employees own problems
- Cross-Functional collaboration



## REQUIREMENTS

- Use Working Sessions
- Ensure actions are taking place
- Share Lessons Learned
- Track progress Visually





# Standard Work

## WHAT IS IT?

A document that outlines the sequence of activities needed to consistently complete a specific type of work.



## WHY USE IT?

- Safety
- Reduces waste
- Increases productivity
- Stabilizes delivery times
- Simplifies processes
- Improves morale
- Allows for continuous improvement
- Enables compliance



## EXPECTATIONS

- Contains the sequence of activities and time
- Accessible by employees



## REQUIREMENTS

- Outlines how to complete specific type of work
- Documents best practices
- Provides a baseline for problem solving and continuous improvement
- Guides leader standard work (process confirmation)



## **EXHIBIT 2**

# EH&S 2022 Planning

August 2, 2021





# Agenda

Time	Topic	Lead
1:00m	Welcome, agenda, attendance check	Redacted
1:05pm	Safety Moment	Redacted
1:10pm	HSMS	Redacted
1:20pm	Standardized, Quality Tailboards	Redacted
1:30pm	Safety Leadership Training	Redacted
1:40pm	Electrical Contact Prevention	Redacted
1:50pm	Ergo	Redacted
2:00pm	Next Steps, Action Items	Redacted
2:10pm	Adjourn	

# Safety Moment – Redacted

**Program: Health & Safety Management System (HSMS)<sup>1</sup>**

<b>Purpose:</b> Continue the HSMS implementation to establish effective governance, management system cycle, and achieve ISO 45001 certification	<b>Owner:</b> Redacted (EHS)	<b>Status</b>
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#	Key Milestone	Owner	Due Date	RAG	Note, if applicable
<b>Governance<sup>2</sup></b>					
1	Communication of 2022 health and safety objectives <sup>3</sup>	Redacted	1/31/2022 <sup>4</sup>		
2	Annual LOB HSMS Self-Assessment and Action Planning		5/30/2022		
4	Annual LOB HSMS Management Review		9/30/2022		
5	Setting of 2023 health and safety objectives		12/15/2022		
6	HSMS LT & Champions Meetings (2-month periodicity)		12/31/2022		
<b>Progressive Implementation</b>					
1	Deployment of HSMS My Learning Modules <sup>5</sup>	Redacted	6/30/2022		
2	Closure of self-assessment gaps from 2021 with 2022 due dates <sup>6</sup>	Redacted	12/15/2022		
3	Hazard Assessment/Risk Management Workshops	Redacted	12/15/2022		
4	Delivery of safety compliance assurance registers <sup>7</sup>	Redacted	12/15/2022		
5	Corporate Safety Audits as per 2022 Audit Plan	Redacted	12/15/2022		
<b>Communication &amp; Engagement</b>					
1	Monthly Communication & Change Management Cadence <sup>8</sup>	Redacted	12/31/2022		
2	2022 Safety Week <sup>9</sup>		3/31/2022		
<b>3<sup>rd</sup> Party Certification</b>					
1	ISO 45001 Pre-certification Audit	Redacted	6/15/2022		
2	ISO 45001 Certification		11/30/2022		



# Tailboard Enhancements

## Program: Tailboard Enhancements

**Purpose:** Collaboratively improve quality of pre-job tailboards for overall delivery, content, hazard identification and mitigations through consistent process across all lines of businesses utilizing a technology platform to document, track and trend.

**Owner:** Redacted

**Status:** On Track

#	Key Milestones	Owner	Due Date	RAG	Note, if applicable
1	Continuous technology improvement	Redacted	03/22		
2	Dashboard and Reporting Enhancements	Redacted	03/22		
3	Develop Communications for awareness (Videos, Emails, Training)	Redacted	04/22		Focus tailboard delivery improvements based on data
4	Observation Effectiveness and Training for observers	Redacted	04/22		
5	Client feedback and improvement mechanism	Redacted	06/22		On-going feedback loop





# Safety Leadership Development

Program: Safety Leadership Development				
Purpose: Develop an impactful safety leadership training			Owner: Redacted Lead: Redacted	Status: In progress
#	Key Milestone	Owner	Due Date	Note, if applicable
1	Leadership and Engagement Standard; gap analysis and evaluation of current SLD training	Redacted	Complete	
2	Vendor selection	Redacted	May – Aug	Pending final contract reviews
3	LOB identify Core Team members	Redacted	Aug 11	Request sent 7/28
4	EHS/Vendor meeting	Redacted	Aug	Week of 8/9 and 8/23 (kick-off and initial course outline)
5	Core team Kick Off meeting	Redacted	Week of Sep 6	
6	Initial course outline complete	Redacted	Mid Sept	
7	Develop, validate, and refine course	Redacted	Oct - Nov	
8	Plan and prepare deployment	Redacted	Q4	
9	Deploy and improve	Redacted	Jan 2022	



# Electrical Contact Prevention

Program: Electrical Contact Prevention		
Purpose: Eradicate electrical contacts with employees, contractors, and equipment	Owner: Redacted	Status: In development

#	Key Milestone	Owner	Due Date	RAG	Note, if applicable
1	Define scope of electrical contacts (to human, flashes, boom contacts, etc.)	Redacted	08/06/21		
2	Pull reports detailing all electrical contacts per scope defined for last 3 years	Redacted	08/13/21		
3	Pull any CAP items from electrical contacts reviewed	Redacted	08/13/21		
4.	Review Electrical Safety Work Methods and compare them to EEI/OSHA Best practice teams for evaluation of best practices	Redacted	08/31/21		
5	Put team together with key players from EO, EHS operations, standard, training and grass roots, to review the data and develop a prevention action plan	Redacted	09/17/21		
5	Review and gain approval for action plans from EO & EHS	Redacted	9/30/21		
6	MOC if needed and implementation plans	Redacted	09/30/21		

## 2022 EHS Planning

Program: Ergonomics		
Purpose: Reduce ergonomic injuries	Owner: Redacted Redacted	Status

#	Key Milestone	Owner	Due Date	RAG	Note, if applicable
1	MOC Process Developed/Implemented for Industrial Ergo Solutions	Redacted	3/31/22		First meeting with Redacted week of 7/26/21
2	Industrial Ergonomic High-Risk Task Solutions	Redacted	12/31/22		Goal: 14 implemented
3	Office Predictive Model Program	Redacted	10/31/22		2 x/year
4	Office Ergo Evaluations @2-year intervals	Redacted	12/31/22		Starting 10/1/21
5	Repeat Ergo Awareness Campaign	Redacted	2/28/22		Partner with Regional Safety Directors

## **EXHIBIT 3**



<b>Resources</b>	<ul style="list-style-type: none"><li>• Participation in team meetings</li><li>• Off-line workload will vary</li><li>• Other resources to be requested as needed</li><li>• Redacted will schedule meetings, review action items, and produce minutes that will include meeting date, list of attendees, major decisions, action item status, date/time and agenda for next meeting, and rolling agenda topics list.</li></ul>
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Updated: December 16, 2020  
Updated Committee members