Safety Culture Assessment Guidelines for Electrical Corporations

Office of Energy Infrastructure Safety
Revised March 2022

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The 2022 update to the Safety Culture Assessment Guidelines for Electrical Corporations by the Office of Energy Infrastructure Safety (Energy Safety) contains the guidelines for the second annual Safety Culture Assessment process. The guidelines are built on the safety culture assessment framework adopted by the California Public Utilities Commission (the Commission or CPUC), in Resolution WSD-011 on November 19, 2020, and the update to this framework adopted by the Commission in Resolution M-4860 on December 2, 2021.[1]

To ensure that Energy Safety's Safety Culture Assessment is distinct from other safety culture assessments, Energy Safety is using an approach that complements existing assessments. Energy Safety's Safety Culture Assessment specifically assesses the safety culture present in the wildfire mitigation work setting: the setting most pertinent to risks faced by the wildfire mitigation workforce in terms of personal risk and risks faced by the public in terms of wildfire risk. Energy Safety and the Commission strive for coordination: this may include sharing findings and procedural lessons learned from Energy Safety's annual Safety Culture Assessment and the Commission's five-year safety culture assessment required by Public Utilities Code Section 8386.2, such that the assessments may be complementary and mutually informative. As Energy Safety continuously refines its annual Safety Culture Assessment each year, some aspects of the process may be amended, in particular the management self-assessment questions, workforce survey questions, and the guidelines for small and multi-jurisdictional utilities and independent transmission operators.

Energy Safety's assessment of safety culture is intended to be complementary to, and not a replacement for, ongoing work to improve safety culture at each electrical corporation. Each electrical corporation may additionally conduct internal safety culture assessments that measure elements specific to that electrical corporation.

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 each electrical corporation's differing approaches and relative strengths and weaknesses. Ultimately, Energy Safety seeks to understand outcomes over time and incorporate continuous learning into the assessment process.

---

[1] Resolution M-4860: "Resolution Pursuant to the Requirements of Public Utilities Code Sections 8389(D)(1), (2), (3) and (4), Related to Catastrophic Wildfires Caused by Electrical Corporations Subject to the Commission's Regulatory Authority." Available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K722/428722129.PDF (accessed December 16, 2021).

The Safety Culture Assessment Guidelines for Electrical Corporations are divided into five sections. A summary of each section follows:

1. **Application of Components to Different Electrical Corporations**

This section provides an explanation of which components apply to each electrical corporation.

2. **Workforce Survey**

Energy Safety conducts a workforce survey targeting electrical corporation employees, supervisors, managers, and contractors who are engaged in wildfire mitigation activities (conducting work related to the electrical corporation's most recent wildfire mitigation plan as defined by any initiative listed within that plan). This section provides the workforce survey principles and questions.

3. **Management Self-Assessment**

Energy Safety uses the management self-assessment to track organizational culture over time. The management self-assessment includes a summary plan for the coming year. This section provides the management self-assessment questions.

4. **Objectives and Lessons Learned**

Energy Safety also tracks each electrical corporation's organizational culture by requesting the corporation's 12-month and 3-year safety culture objectives and any lessons learned since the corporation's last safety culture assessment, including reporting on implementation of recommendations. This section describes these components in more detail.

5. **Interviews, Observational Visits, and Supporting Documentation**

At its discretion, Energy Safety may seek out additional details and context for the principal inputs through:
- Interviews with members of the workforce targeted for participation in the workforce survey.
- An interview with members of the team that completed the management self-assessment, summary plan, objectives and lessons learned.
- Observational visits.
- Supporting documentation such as a list of required safety trainings, minutes from recent high-level safety meetings, a description of safety-related incentives, or other materials that might help validate the self-assessment.

Upon Energy Safety's request, each electrical corporation must make itself available for interviews and observational visits.

If requested by Energy Safety, electrical corporations must also provide supporting documentation to validate their management self-assessments. This section includes a non-exhaustive list of supporting documentation that Energy Safety may request.

GUIDELINES FOR ELECTRICAL CORPORATIONS

1. Application of Safety Culture Assessment Components to Different Electrical Corporations

Not every assessment component applies to every electrical corporation. Below is a table explaining which components apply to each category of electrical corporation.

There are three categories of electrical corporations used for the purposes of the Safety Culture Assessment (SCA):

- **Large electrical corporations, also called investor-owned utilities ("Large IOUs")**:
  Pacific Gas and Electric Company, San Diego Gas & Electric, and Southern California Edison Company.

- **Small and multijurisdictional utilities[2] ("SMJUs")**:
  Liberty Utilities (CalPeco), PacifiCorp, and Bear Valley Electric Service, Inc.

- **Independent transmission operators ("ITOs")**:
  Horizon West Transmission and Trans Bay Cable.

Table 1. Overview of requirements by category of electrical corporation.

Component	Electrical corporations that must complete this component	Commentary
Workforce survey	Large IOUs, SMJUs	Energy Safety uses the workforce survey to assess key workforce perceptions and behaviors at the large and small electrical corporations, but not the independent transmission operators, where the workforces are too small to ensure the anonymity of respondents.

---

[2] In this document "utility" should be understood to mean "electrical corporation."

Component	Electrical corporations that must complete this component	Commentary
Management self-assessment with summary plan for the coming year	Large IOUs	Energy Safety uses the management self-assessment, a detailed assessment of organizational systems, to evaluate the larger, more complex electrical corporations.
Safety culture objectives and summary of lessons learned (including reporting on implementation of recommendations)	Large IOUs, SMJUs, ITOs	Energy Safety uses the safety culture objectives and summary of lessons learned in the evaluation of all electrical corporations. This is the only requirement for ITOs, which are small organizations with a lower risk profile than the large IOUs and SMJUs.
Interviews	To be determined by Energy Safety upon review of submissions	Interviews may be required of any electrical corporation. In 2022, they will be required of the large IOUs.
Observational visits	To be determined by Energy Safety upon review of submissions	Observational visits may be required of any electrical corporation.
Supporting documentation	To be determined by Energy Safety upon review of submissions	Supporting documentation may be required of any electrical corporation.

2. Workforce Survey

In 2021, Energy Safety required the large IOUs (Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas & Electric) and the SMJUs (Liberty Utilities [CalPeco], PacifiCorp, and Bear Valley Electric Service, Inc.) to participate in the workforce survey. In 2022, the same electrical corporations must complete the survey.

2.1   The workforce survey process

2.1.1   Target population for the workforce survey and planning meeting

Target population

The target population for the workforce survey consists of those employees, supervisors, managers, and contractors who are engaged in wildfire mitigation activities. This would include any electrical corporation employee or contractor employee who conducts work related to the electrical corporation's most recent wildfire mitigation plan as defined by any initiative listed within that plan. One example of this type of employee is a lineperson who is working to install system hardening infrastructure.

Energy Safety acknowledges that the small number of respondents from SMJUs may lead to skewed survey results: Energy Safety may take this into account in its evaluation.

Planning meeting

Energy Safety, each electrical corporation to be surveyed, and a third-party vendor overseeing the survey will meet before the administration of the survey to agree on the work units and contractor firms that should be included in the target population. Additionally, Energy Safety, the electrical corporation, and the vendor will use this meeting to define deadlines, identify additional languages needed for the survey, finalize demographic questions,[3] identify the best ways to encourage target population participation, and ensure there is agreement on next steps and responsibilities. Results will be broken down by demographic categories where it would not compromise respondent anonymity. The results may be broken down by:

- Whether the respondent is an electrical corporation employee or contractor employee.

- Seniority (executive, management, supervisor, or frontline worker).

- Type of wildfire mitigation activity (asset inspection, community engagement, grid operations, vegetation management, etc.).

---

[3] Demographic questions: here, questions that are part of the workforce survey that are used to analyze the survey results according to common groups within the organization while maintaining anonymity. For example, a common demographic question is to ask respondents to indicate which level they belong to in the organization with options including executive, management, supervisor, and frontline worker.

- Location (where applicable: this varies by electrical corporation— for example, Liberty Utilities' locations are North Lake and South Lake).

- Business unit.

- Length of tenure.

- Seniority with length of tenure (this shows, for example, if executives who have been in their jobs longer gave more positive responses than new executives).

Below are examples of demographic questions; the terminology used in the question and the response options may vary by electrical corporation so that respondents are best able to recognize where they fit among the options.

- In which organizational function do you primarily work?

    – Response options: Field Services, Transmission, Distribution, Environment, Health & Safety, Subcontractor, etc.

- What is your primary work location?

    – Response options: List of company locations.

- What is your position within the company?

    – Response options: Executive, Manager, Supervisor, Frontline Worker.[4]

- Mark the wildfire mitigation activities in which you spend at least 10% of your time (check all that apply):

    – Response options: Risk Assessment & Mapping, Situational Awareness and Forecasting, Grid Design and System Hardening, Vegetation Management, etc.

Planning meeting participants should include representatives from the electrical corporation (including utility employee representatives and human resources staff), Energy Safety, and the third-party survey administrator.

2.1.2   Guidelines for workforce survey communication, administration, and collection

Overview

A critical element of any workforce survey is to administer it in an unbiased manner so that the survey output represents, to the extent possible, a true representation of employees' perceptions of their work environment, not unduly influenced by the employer or any other party. Therefore, survey communication, administration, and data collection must comply with the following communication guidelines to maximize the survey output's accuracy.

Workforce survey communication

To achieve an effective response rate, it is critical that the electrical corporation communicates the purpose for the workforce survey and the value of participation to the participant and the

---

[4] Frontline worker: here, an employee that does not have any other employees reporting directly to them.

organization. Below are guidelines for communication directed at the target survey population about the survey:

- All communications to the target survey population should encourage people to participate in the survey and be honest in their responses.
- Communication should indicate that the purpose of the survey is to fulfill a state requirement for a safety culture assessment. However, it should not emphasize the fact that the survey is being conducted at the direction of a state regulator.
- Communication should indicate that survey responses will be used to inform a plan for improvement.
- Communication supporting survey participation should come from both management and labor leadership.
- Communication should avoid implying in any way that responses to the survey might have repercussions for the electrical corporation's ability to get a Safety Certification. This might create bias in survey responses.
- Communication should indicate that the electrical corporation is interested in the employee's perceptions and is invested in improvement.
- Communication should make it clear responses are anonymous and employees' survey responses will have no bearing on their performance review or compensation package (salary, benefits, incentives, etc.).

To ensure compliance, Energy Safety may ask the electrical corporation for documentation of all communications about the survey.

Workforce survey administration

It is imperative to ensure the privacy of responses, such that neither the electrical corporation's management nor Energy Safety can personally identify respondents. To this end Energy Safety is engaging a third-party survey administrator. Energy Safety requires that the third-party survey administrator takes appropriate precautions to preserve individual privacy and data confidentiality throughout the entire survey process with both online and paper surveys. Energy Safety understands that respondent anonymity is essential to the survey's usefulness as an evaluation tool.

Members of the target survey population who work mainly in desk jobs will be emailed a link to an online version of the workforce survey. For these surveys, anonymity and freedom from environmental influence are easier to guarantee: both the administration and response in the online survey format are private, anonymous, and unlikely to be influenced environmentally, provided the electrical corporation follows the communication guidelines above.

Special considerations must be taken to ensure that workers who don't have a private workspace, such as frontline field workers, are not subject to environmental influence in their survey responses. This applies to frontline workers whose workspace does not include a personal computer or workers who are not provided a company smartphone or laptop.

The following guidelines are provided for administering the survey to frontline workers lacking private workspaces:

- If respondents are completing the survey on a shared workstation (i.e., a workstation used by multiple people), instructions should be provided for going to the survey link, responding, and then submitting the survey such that there is no need for a supervisor to be involved with submitting the survey or resetting the computer.

- No supervisors or co-workers should be next to the survey respondent, looking over the respondent's shoulder, or in the vicinity of respondents while they complete the survey.

- For respondents using shared workstations, it is critical that the respondent be the person who clicks on the "submit" button for the survey.

- If a paper version of the survey is used, no supervisors should be in the room while respondents are completing the survey and completed surveys should be placed in a sealed envelope before they are handled further.

- All workers in the target population (those conducting work related to the electrical corporation's most recent wildfire mitigation plan as defined by any initiative listed within that plan) should have the opportunity to complete the survey.

- Workers should be accommodated in their needs regarding assistive technology, language accessibility, and COVID-19 or other health-related considerations.

Workforce survey data collection

Regarding data collection for the online version of the survey:

- The survey and responses must be stored securely on the servers of the third-party survey administrator.

- Once the "submit" button is clicked, the respondent cannot go back into the survey to either view or change survey responses.

Regarding data collection for the paper version of the survey:

- Paper surveys should not be reviewed or handled by any supervisors or managers in the organization.

- Paper surveys should be put in pre-addressed and stamped envelopes and sent directly to the third-party administrator for processing.

2.1.3   Workforce survey questions

The workforce survey is designed to measure critical aspects of safety culture including both the general safety culture of the organization and the safety culture in the wildfire mitigation work setting.

The survey consists of 30 statements that respondents evaluate on a five-point scale ranging from "strongly disagree" to "strongly agree."[5] Respondents should be encouraged to respond to each statement[6] based on their personal observations of the organization, supervisors, and fellow workers. If a respondent is unable to evaluate a statement based on personal observations, the respondent will be instructed to not evaluate that statement.

The following terms are used within the survey statements:

- "Leaders" and "management" are people in managerial responsibilities in the organization above the respondent's level.
- "My supervisor" refers to the respondent's immediate manager.
- "People" are others around the worker such as other work colleagues, contractors, or workers in peer groups.
- "People in my workgroup" and "my workgroup" refer specifically to the respondent's work team.

There are three general topics covered by the 30 survey statements: wildfire safety, personal safety, and overall culture.

- **Wildfire safety** is addressed by nine statements about the electrical corporation's safety culture with regard to wildfire (e.g., "Our management acts quickly to address wildfire hazards").
- **Personal safety** is addressed by eleven statements about personal safety (e.g., "Pausing work for hazards and safety concerns is viewed positively").
- **Overall culture** is addressed by ten statements about workplace culture in general (e.g., "The company cares about my opinions").

All 30 survey statements are listed below broken down by which topic is addressed by each.

Wildfire safety

Below are the nine statements intended to measure the topic of wildfire safety.

- My workgroup consistently follows procedures to control workplace hazards in our work areas (including procedures specific to wildfire hazards).
- I feel comfortable discussing wildfire hazards with my supervisor.
- Wildfire and personal safety concerns are communicated openly.
- Protecting the community from wildfire hazards is clearly a high priority with management.

---

[5] The 30 workforce survey statements are based on a safety culture measurement instrument, the Organizational Culture Diagnostic Instrument, created by DEKRA Services, Inc. For more information on this instrument: https://www.dekra.us/en/organizational-safety-reliability/ocdi/ (accessed Dec. 20, 2021). DEKRA modified some of the statements from the instrument in 2020 to incorporate wildfire safety concerns.
[6] For the online version of the survey, responses to all statements are mandatory; for the paper version of the survey, respondents assan only be encouraged to respond to each cratement.

- People look for wildfire hazards and risks as work progresses.
- People in my work group report all wildfire hazards, no matter how minor.
- Our management acts quickly to address wildfire hazards.
- Leaders actively seek out signs of potential wildfire hazards.
- I am regularly asked for my ideas and suggestions about wildfire hazards and ways to address them.

Personal safety

Below are the eleven statements intended to measure the topic of personal safety.

- I take responsibility for the safety of myself and others in my work area.
- If I stopped a job because an important safety step was missing, it would be viewed positively by my supervisor.
- Pausing work for hazards and safety concerns is viewed positively.
- I stop people, even those I do not know, to point out unsafe behavior when I see it in the work environment.
- Accidents and incidents are investigated completely to find out what happened and the corrective actions needed.
- People have the skills they need to resolve workplace safety issues.
- Leaders use mistakes and incidents as learning opportunities.
- Leaders keep people prepared to intervene when an emergency occurs.
- People have the ability to respond to and correct problems and errors before they get out of control.
- We have the right tools for the job.
- People focus on one task at a time and avoid distractions.

Overall culture

Below are the ten statements intended to measure the topic of overall culture.

- People in my work group treat each other with respect.
- My supervisor would use whatever power they have to help me out.
- Leaders encourage people to ask questions.
- Information about important events and lessons learned is shared within my work group.
- My supervisor makes sure all employee concerns are heard before job decisions are made.
- Managers treat workers with respect.
- People listen to one another: it is rare that someone's views go unheard.
- I believe managers apply the same rules for all workers.
- People report mistakes they make, even if others do not notice them.
- The company cares about my opinions.

2.1.4   Workforce survey output

After the survey output is collected and tabulated by the third-party survey administrator, results are provided to Energy Safety in the form of anonymized data in an Excel file. Energy Safety and the third-party survey administrator will continuously strive to ensure data is as detailed as possible while remaining truly anonymous.

3. Management Self-Assessment

In 2021, Energy Safety required the large IOUs (Pacific Gas and Electric, Southern California Edison, and San Diego Gas & Electric) to submit a management self-assessment, including a summary plan for the coming year. This component gives the electrical corporations the opportunity to report the current state of 22 safety culture elements of their organizational culture (listed below)[7] and project their state at end of the coming year (reflecting two years of expected progress). In 2022, the same electrical corporations must again submit the management self-assessment with projections for the end of 2023 and associated summary plan for the coming year.

3.1 How electrical corporations will complete the management self-assessment

Energy Safety uses the management self-assessment to track organizational culture over time. The 2021 self-assessment serves as the baseline for measurement in 2022. The 2021 summary plan for 2022 established each corporation's targets for improvement by the end of 2022.

In 2022, each large IOU must indicate its expected status of various elements of its safety culture at present, expected status at the end of 2023, and its summary plan for 2022. This summary plan should outline the steps that are expected to move the corporation from its current status to its expected status at the end of 2023 (if movement is expected).

Each electrical corporation must complete the self-assessment by:

1. Indicating the most appropriate response option for each of the 22 questions based on the presently employed practices and capabilities of the electrical corporation, including a description of why the corporation has rated itself at that level.

2. Indicating the electrical corporation's expected response to each question at the end of 2023 based on work planned for the coming year.

3. Summarizing its plan to realize that target through its work in the coming year (see Section 3.6 "Summary plan for the coming year" for more details).

The self-assessment rating scale and structure are presented below.

---

[7] The 22 safety culture elements measured in the management self-assessment were developed by DEKRA Services, Inc.

3.2   Behaviorally anchored rating scale

The questions on the self-assessment are rated using a four-level behaviorally anchored rating scale that is customized for each question. The four levels indicate how safety is viewed within the organization as defined by the table below:[8]

1	**2**	**3**	**4**
Public compliance	**Private compliance**	**Stewardship**	**Citizenship**
Safety is viewed as an external requirement. Safety-supporting behaviors are not intrinsically motivated. Also, the utility does not incorporate safety-supporting protocols where not required by law.	Safety is viewed as a personal priority, though may be routinely[9] susceptible to competing pressures.	Individually directed safety citizenship. Workers see wellbeing and public safety as having intrinsic worth and take action to make their teams safer.	Organizationally directed safety citizenship. Safety is inherent within the organizational identity creating sensitivity to subtle changes in exposure.
"I need to make sure I'm following safety procedures when management is looking, even though they are a burden."	"I choose to be safe: safety procedures are there to protect me. It is my responsibility to follow them." Supervisors may react to injuries or incidents rather than focusing on exposure control.[10]	"To stay safe as a team, we need to look out for one another." Supervisors may seek to understand exposures, weak signals, and performance consistency.	"Safety is a core part of everyone's job. It is a shared responsibility. We strive to improve ourselves and learn from our collective mistakes." The culture is inclusive,[11] caring,[12] and trusting.[13] Safety leadership is broad and learning-oriented, with

---

[8] The four levels of safety culture maturity (public compliance, private compliance, stewardship, and citizenship) are based on research by Burke et al. (2002, see: https://psycnet.apa.org/record/2002-15213-006 [accessed Dec. 20, 2021]) and Hofmann, Morgeson, and Gerras (2003, see: https://psycnet.apa.org/record/2003-04931-017 [accessed Dec. 20, 2021]), and the work of Sentis Pty Ltd (for example: https://sentis.com.au/articles/safety-citizenship [accessed Dec. 20, 2021]).

[9] Routinely: here, a matter of ordinary operations.

[10] 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).

[11] Inclusive culture: here, a culture that integrates differing viewpoints.

[12] Caring culture: here, a culture that makes wellbeing a priority concern.

[13] Trusting culture: here, a culture characterized by honesty and respect for differences.

governance that is highly effective[14] and systematic.

---

[14] Highly effective governance: here, governance characterized by implementation that optimizes outcomes for the organization to a high degree.

3.3   Management self-assessment structure

The management self-assessment is intended to assess nine dimensions across three categories: organizational sustaining systems, governance, and safety-enabling systems. The self-assessment structure is provided below:

1.	**Organizational sustaining systems**
1.1	Performance management: How the organization drives individual safety performance (3 questions)
1.2	Workforce development: How employees and contractors are provided with training and continuous learning opportunities (3 questions)
1.3	Rewards and recognition: Extent to which rewards and incentive systems support safety (1 question)

2.	**Governance**
2.1	Senior leadership accountability: How safety leadership accountability is assigned and reflected through measures and objectives (3 questions)
2.2	Metrics and targets: Effectiveness of safety metrics and actions of leadership in response to metrics, and the extent to which metrics are communicated (3 questions)

3.	**Safety-enabling systems**
3.1	Event investigation: Types of incidents[15] investigated, quality and results of investigations (3 questions)
3.2	Hazard recognition:

---

[15] Incident: here, an unplanned, undesired event that adversely affects normal operations, not limited to CPUC reportable incidents.

	Extent to which hazards are reported and recognized (1 question)	
3.3	Anticipation, resilience, and learning: How the organization anticipates and learns from incidents and near misses[16] (3 questions)	
3.4	Assurance: Safety audit processes used and tracking of findings (2 questions)	

3.4 Index of self-assessment questions

Each self-assessment dimension is assessed through one to three multiple choice questions. A list of all questions is provided here. The response options for each question are provided in the next section (Section 3.5).

1. Organizational Sustaining Systems

1.1 Performance Management

Dimension Subsection	Assessment question
1.1.1	To what extent is wildfire safety performance integrated into leadership selection/promotion decisions?
1.1.2	How are wildfire safety responsibilities integrated into frontline supervisors'[17] goals and objectives?
1.1.3	To what extent is safety and the ability to work safely incorporated into position descriptions and expectations?

---

[16] Near miss: here, an unplanned event that did not result in injury, illness, or damage, but had the potential to do so. In other contexts, Energy Safety uses the term "risk event" instead of "near miss" but has left "near miss" here as it is a more commonly understood term in the safety culture context.

[17] Frontline supervisors: here, the first level of leadership that has direct oversight of employees within operational units of the organization.

1.2 Workforce Development

Dimension Subsection	Assessment question
1.2.1	To what extent are training and support resources available to frontline supervisors to improve their safety leadership skills?
1.2.2	To what extent are training and support resources available to frontline workers to improve their wildfire safety skills?
1.2.3	What are the personal safety and wildfire-specific training requirements of contractors?

1.3 Rewards and Recognition

Dimension Subsection	Assessment question
1.3.1	To what extent do rewards and incentives for operational leaders[18] and workers support safety and mitigating wildfire hazards?

2. Governance

2.1 Senior Leadership Accountability

Dimension Subsection	Assessment question
2.1.1	Who is accountable for wildfire safety outcomes?
2.1.2	Who is accountable for personal safety outcomes?
2.1.3	Rate the types of wildfire safety measures and objectives tracked by senior operational leadership.

2.2 Metrics and Targets

Dimension Subsection	Assessment question
2.2.1	How effective are wildfire safety metrics[19] in providing insight into critical areas of risk?

[18] Operational leaders: here, supervisors working in the levels of management within operations ranging from frontline supervisors (who have direct oversight of employees) to executive level senior operational leaders (e.g., COO).
[19] Wildfire safety metrics may include metrics such as inspection findings, ignitions, wire down events, wildfire fatalities, etc.

Dimension Subsection	Assessment question
2.2.2	How frequently does the senior safety team monitor and adjust actions and strategies related to wildfire safety?
2.2.3	To what extent are wildfire safety metrics communicated throughout the organization?

3. Safety-Enabling Systems

3.1 Event Investigation

Dimension Subsection	Assessment question
3.1.1	What types of adverse events are investigated using root cause analysis?[20]
3.1.2	Rate the quality of event investigations.
3.1.3	What happens with investigation results?

3.2 Hazard recognition

Dimension Subsection	Assessment question
3.2.1	What kind of process is used by frontline workers to recognize and report wildfire hazards?

3.3 Anticipation, Resilience, and Learning

Dimension Subsection	Assessment question
3.3.1	What structures, systems, and/or processes have been established to encourage sensitivity to weak signals[21] of wildfire hazards?
3.3.2	What steps are taken to ensure frontline supervisors and workforce can respond quickly to upset conditions?[22]
3.3.3	What processes and structures have been established to create a learning organization?[23]

---

[20] Root cause analysis: here, a systematic process for identifying the primary causes of problems or events and an approach for responding to them.
[21] Weak signal: here, an indicator of a potentially emerging issue that may become significant in the future.
[22] Upset conditions: here, interruptions in the regular running of work processes or other planned activity.
[23] Learning organization: here, an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.

3.4 Assurance

Dimension Subsection	Assessment question
3.4.1	What types of safety audits[24] are used for activities related to wildfire mitigation?
3.4.2	How are the findings from safety audits used for activities related to wildfire mitigation tracked to closure?

3.5   Self-assessment response options for each question

This section contains the questions and response options for each self-assessment dimension. To enable Energy Safety to verify responses, electrical corporations must describe their reasoning for each self-assessment rating. Energy Safety reserves the right to update this request in future years to include a requirement for more detailed supporting documentation. Requests for supporting documentation in 2022 are at Energy Safety's discretion. A list of possible supporting documentation Energy Safety may request is provided in Section 5.2 "Documentation to support responses to the management self-assessment."

---

[24] Safety audit: here, a structured process whereby information is collected relating to the efficiency, effectiveness, and reliability of a company's total health and safety management system.

1.1 Performance Management

Assessment Question	(1)	Public compliance	(2)	Private compliance	(3)	Stewardship	(4)	Citizenship
1.1.1 To what extent is wildfire safety performance integrated into leadership selection/ promotion decisions?	○	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 selection/promotion decisions	○	Excellent personal and wildfire safety performance are necessary for advancement; poor safety performance eliminates leader from selection/promotion
1.1.2 How are wildfire safety responsibilities integrated into frontline supervisors'[25] goals and objectives?	○	No annual goals or objectives related to wildfire safety	○	Goals and objectives focus on only lagging indicators[26] for wildfire or personal safety related to wildfire mitigation work	○	Goals and objectives contain a mix of leading[27] 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
1.1.3 To what extent is safety and the ability to work safely incorporated into position descriptions and expectations?	○	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 that each employee has to speak up and intervene if unsafe conditions exist, both for wildfire and personal safety	○	Emphasis on each person's role and the expectation and mechanism to hold the organization accountable if unsafe conditions exist, both for wildfire and personal safety

1.2 Workforce Development

Assessment Question	(1) Public compliance	(2) Private compliance	(3) Stewardship	(4) Citizenship
1.2.1 To what extent are training and support resources available to frontline supervisors to improve their safety leadership skills?	◯ 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 "Stewardship" option are met; In addition, training includes advanced safety topics such as exposure[28] management,[29] and human performance reliability[30]
1.2.2 To what extent are training and support resources available to frontline workers[31] to improve their wildfire safety skills?	◯ 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.)	◯ All criteria in "Stewardship" option are met; In addition, training includes advanced safety topics such as human performance reliability
1.2.3 What are the personal safety and wildfire-specific training requirements of 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

1.3 Rewards and Recognition

Assessment Question	(1) Public compliance	(2) Private compliance	(3) Stewardship	(4) Citizenship
1.3.1 To what extent do rewards and incentives for operational leaders and workers support safety and mitigating wildfire hazards?	⭕ 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 mitigation activities	⭕ Rewards and incentives focus on leadership activities such as reporting wildfire concerns, generating innovative ideas to reduce wildfire hazards, and approaching others about safety concerns

[28] 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).

[29] 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.

[30] Human performance reliability: here, the suite of knowledge, skills and capabilities required to anticipate, control, and respond to unplanned issues and error.

[31] Frontline worker: here, an employee that does not have any other employees reporting directly to them.

2.1 Senior Leadership Accountability

Assessment Question	(1) Public compliance	(2) Private compliance	(3) Stewardship	(4) Citizenship
2.1.1 Who is accountable for **wildfire** safety outcomes?	◯ Not defined	◯ Safety department	◯ Operational leadership[32] and Safety Department	◯ Executive leadership[33] with Safety Department as trusted advisor
2.1.2 Who is accountable for **personal** safety outcomes?	◯ Not defined	◯ Safety department	◯ Operational leadership and Safety Department	◯ Executive leadership with Safety Department as trusted advisor
2.1.3 Rate the types of wildfire safety indicators and objectives tracked by senior operational leadership.	◯ No wildfire safety objectives	◯ Leading and lagging wildfire safety indicators required to be reported for regulatory purposes	◯ Required safety measures for regulatory purposes. Additional leading indicators used for wildfire mitigation work that are aligned with actionable initiatives	◯ Required safety indicators. Additional leading indicators used for wildfire mitigation work that are aligned with actionable initiatives at each level of the organization

---

[32] Operational leadership: here, the levels of management within operations ranging from frontline supervisors (who have direct oversight of employees) to executive level senior operational leaders (e.g., COO).

[33] Executive leadership: here, the highest level of management in an organization, reports to the CEO.

2.2 Metrics and Targets

Assessment Question	(1)	Public compliance	(2)	Private compliance	(3)	Stewardship	(4)	Citizenship
2.2.1 How effective are wildfire safety metrics[34] in providing insight into critical areas of risk?	○	Not effective	○	Reasonably effective[35] in providing data and trends across company	○	Highly effective[36] in providing data and trends in critical exposure[37] areas	○	Highly effective in providing data and critical exposure area trends, and actionable insight
2.2.2 How frequently does the senior safety team monitor and adjust actions and strategies related 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 real time strategic problem solving focused on systemic risks[38]
2.2.3 To what extent are wildfire safety metrics communicated throughout the organization?	○	Safety metrics are not shared	○	Lagging indicators for wildfire outcomes are posted at local/site operations[39]	○	Lagging and leading indicators for wildfire safety are posted and discussed in regular management and supervisor meetings	○	Lagging and leading indicators for wildfire safety are discussed; individual/ team contributions to leading indicators are highlighted and recognized publicly

[35] Reasonably effective: here, producing optimal outcomes most of the time.
[36] Highly effective: here, producing optimal outcomes all or almost all the time.

3.1 Event Investigation

Assessment Question	(1) Public compliance	(2) Private compliance	(3) Stewardship	(4) Citizenship
3.1.1 What types of adverse events are investigated using root cause analysis?[40]	◯ Only fatal or serious incidents[41] required to be reported[42] to OSHA, CPUC reportable ignitions,[43] or incidents required to be reported to Energy Safety (pursuant to Cal. Code Regs. title 14, Section 29301)	◯ 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[44] teams evaluate high risk situations[45] for proactive opportunities to reduce exposure

---

[36] Highly effective: here, producing optimal outcomes all or almost all the time.

[37] 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).

[38] Systemic risk: here, vulnerabilities that could result in cascading or broad failures across the utility.

[39] Operations: here, the parts of a business that affect the production, distribution, and service necessary for a company to function. For the purposes of Energy Safety's safety culture assessment, electrical operations, field services, transmission, substations, and distribution are considered part of operations, but generation is not.

[40] Root cause analysis. A systematic process for identifying the primary causes of problems or events and an approach for responding to them.

[41] Incident: here, an unplanned, undesired event that adversely affects normal operations, not limited to CPUC reportable incidents.

[42] OSHA reportable incident: 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.

[43] 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.)

[44] 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 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.

[45] High risk situations: here, work activities or situations that have previously been shown in incident data to be associated with serious or fatal incidents.

Assessment Question	(1) Public compliance	(2) Private compliance	(3) Stewardship	(4) Citizenship
3.1.2 Rate the 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
3.1.3 What happens with investigation results?	◯ 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;[46] lessons learned 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)

---

[46] High value controls: Elimination, Substitution, and Engineering. 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). High value controls are Elimination, Substitution, and Engineering because the effectiveness of the control is not susceptible to human error.

3.2 Hazard Recognition

Assessment Question	(1)	Public compliance	(2)	Private compliance	(3)	Stewardship	(4)	Citizenship
3.2.1 What kind of process is used by frontline workers to recognize and report wildfire hazards?	◯	No formal process	◯	Process exists to report wildfire hazards but no training or feedback	◯	Process established, workforce is trained in the process, and it is communicated widely;[47] there is consistent follow-up[48] to reduce exposure[49]	◯	Process established and communicated for wildfire hazard reporting; workforce is trained in the process and encouraged to report wildfire hazards; results broadly shared[50] across organization to spur learning and exposure reduction

---

[47] Widely: here, communicated to all work units of frontline workers who might be exposed to wildfire hazards.

[48] Consistent follow-up: here, followed up with supportive action most or all the time.

[49] Incident: here, an unplanned, undesired event that adversely affects normal operations, not limited to CPUC reportable incidents.

[50] Broadly shared: here, shared with all relevant work units.

3.3 Anticipation, Resilience, and Learning

Assessment Question	(1) Public compliance	(2) Private compliance	(3) Stewardship	(4) Citizenship
3.3.1 What structures, systems, and/or processes have been established to encourage sensitivity to weak signals[51] of wildfire hazards?	⚪ No formal process or structure	⚪ Workforce is encouraged to report wildfire hazards as it sees them	⚪ System established for reporting and mitigating wildfire hazards; leaders encourage reporting of weak signals	⚪ A cross-functional team is established to proactively[52] look for, track, and mitigate wildfire hazards and potential black swan[53] situations
3.3.2 What steps are taken to ensure frontline supervisors and workforce can respond quickly to upset conditions?[54]	⚪ No formal training or preparation	⚪ Common upset conditions have been identified and response protocols are reviewed regularly	⚪ Simulations and drills[55] 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

---

[51] Weak signal: here, an indicator of a potentially emerging issue that may become significant in the future.

[52] Proactively: here, in advance of an incident, not in response to a hazardous event but in response to the detection of a possible hazard.

[53] Black swan event: An unpredictable event that is beyond what is normally expected and has potentially severe consequences.

[54] Upset conditions: here, interruptions in the regular running of work processes or other planned activity.

[55] Drills: here, coordinated, supervised activities designed to test work team responses to various planned upset conditions.

Assessment Question	(1) Public compliance	(2) Private compliance	(3) Stewardship	(4) Citizenship
3.3.3 What processes and structures have been established to create a learning organization?[56]	◯ 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 "Private Compliance" option, plus processes exist for systematically using the knowledge management system and implementing safety-related best practices	◯ All criteria met in "Stewardship" option, plus these processes for tapping best practices in knowledge management system are used routinely[57] and by nearly everyone

---

[56] Learning organization: here, an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.

[57] Routinely: here, a matter of ordinary operations.

3.4 Assurance

Assessment Question	(1)	Public compliance	(2)	Private compliance	(3)	Stewardship	(4)	Citizenship
3.4.1 What types of safety audits[58] are used for activities related to wildfire hazard mitigation?	◯	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 level of wildfire risk present	◯	Systemic and rigorous[59] self, independent, and internal audits conducted and used for alignment, calibration, and learning
3.4.2 How are the findings from safety audits of activities related to wildfire mitigation tracked to closure?	◯	No formal tracking mechanism	◯	Self-tracking of closures; no verification	◯	Audit findings tracked and verified to closure	◯	Audits tracked, implementation verified to closure, and effectiveness validated

---

[58] Safety audit: here, a structured process whereby information is collected relating to the efficiency, effectiveness, and reliability of a company's total health and safety management system.

[59] Rigorous safety audits: here, audits that use a regime that always or almost always detects safety problems before they become hazardous situations.

3.6   Summary plan for the coming year

For 2022, each large IOU must submit a summary action plan for the work that is planned in 2022 to achieve the targets for the end of 2023 indicated in its management self-assessment. The template for the summary plan follows:

Summary plan for the following year:

In the table below, provide a summary action plan for the work that is planned in 2022 to achieve your 2023 targets indicated in the Management Self-Assessment.

A. Action/Activity	B. Deadline	C. Management Self-Assessment Reference(s). Indicate which question(s) this activity links to.
[Action or activity - brief description]	[Date in 2023]	[Question number, e.g., 1.1.1]

In subsequent years, Energy Safety reserves the right to require this plan to include detailed action steps, owners, deadlines, and how the action will be monitored and tracked.

4. Objectives and Lessons Learned

In 2021, all electrical corporations (large electrical corporations, small and multi-jurisdictional utilities, and independent transmission operators) were required to submit 12-month and 3-year safety culture objectives and any lessons learned since the electrical corporation's last safety culture assessment.

In 2022, Energy Safety will again use the safety culture objectives and summary of lessons learned in the evaluation of all electrical corporations. Additionally, electrical corporations will need to include a brief report on implementation of recommendations from 2021, including results observed so far, if any.

Instructions for completing these sections are included within each section below. The electrical corporation is given the opportunity to provide a narrative response. This narrative response may include quantitative and qualitative explanations, as well as supporting documentation including relevant spreadsheets, charts, or data tables.

4.1   Safety culture objectives

All electrical corporations must provide a description of their objectives with respect to safety culture:

- Over the next 12 months

- Over the next 3 years

The template for reporting safety culture objectives follows:

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 and/or risk to employees conducting wildfire mitigation work
[Objective]	[Metrics]	[12-month target]	[Description]

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 3 years from submission	D. Description of how this objective will reduce wildfire risk to the public and/or risk to employees conducting wildfire mitigation work
[Objective]	[Metrics]	[3-year target]	[Description]

4.2   Summary of lessons learned

The template for reporting the summary of lessons learned follows:

Description of lessons learned since most recent safety culture assessment:

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.

A. Major Themes or Lessons Learned	B. Actions Taken
[Theme, lesson in brief]	[Actions taken in response]

The template for reporting on the implementation of recommendations follows:

Description of implementation of recommendations from most recent safety culture assessment:

Describe the steps taken by the electrical corporation in response to the recommendations from its last Safety Culture Assessment. Include results observed so far, if any.

A. Recommendation	B. Actions Taken	C. Results (if any)
[Exact or paraphrased recommendation from the last Safety Culture Assessment]	[Actions taken in response to recommendation]	[Any results]

5. Interviews, Observational Visits, and Supporting Documentation

5.1 Interviews and observational visits

In 2021, Energy Safety completed workforce survey follow-up interviews and management self-assessment follow-up interviews with staff from the large electrical corporations. In 2022, the same corporations must participate in these follow-up interviews.

Upon Energy Safety's request, each electrical corporation must make itself available for interviews and observational visits.

The objective of the interviews is to allow Energy Safety to better understand the results of the workforce survey and self-assessment (where applicable). Understanding the organizational context behind responses helps Energy Safety interpret the results of the workforce survey and management self-assessment more accurately and better identify priority areas which electrical corporations should focus on improving.

5.2 Documentation to support responses to the management self-assessment

Energy Safety may require the following documentation from electrical corporations to support justifications given for their self-ratings in the management self-assessment.

Additional requests for supporting documentation are at Energy Safety's discretion. Supporting documentation that is confidential may be submitted using our confidential submission process.

	Supporting documentation that could be requested by Energy Safety (not exhaustive)	Applicable Questions
1	Evaluation and/or summary decision forms (containing the date, department, current job title, new job title, and decision criteria) used to make 3-4 leadership selection or promotion decisions (deleting any personal identifying information). The 3-4 examples should be operational leaders[60] and a mix of levels from frontline supervisors[61] to senior operational leaders.	1.1.1
2	A sample of performance goals and objectives used in personal annual performance reviews from 2-3 frontline supervisors.	1.1.2
3	Position descriptions for one frontline worker, supervisor, and senior operational leader.	1.1.3
4	A list of safety training required by frontline supervisors (do not include training required for specialty certifications or licenses such as CPR certification).	1.2.1
5	A list of safety training required by frontline workers (do not include training required for specialty certifications or licenses such as a lineperson's International Brotherhood of Electrical Worker certification).	1.2.2
6	A list of safety and wildfire hazard training required by contractors to perform work onsite (do not include training required for specialty certifications or licenses). This is training provided by the electrical corporation.	1.2.3
7	A summary of safety-related incentives (for example, financial, career development, recognition, etc.) used by the organization for operational	1.3.1

---

[60] Operational leaders: here supervisors working in the levels of management within operations ranging from frontline supervisors (who have direct oversight of employees) to executive level senior operational leaders (e.g., COO).

[61] Frontline supervisors: here, the first level of leadership that has direct oversight of employees within operational units of the organization.
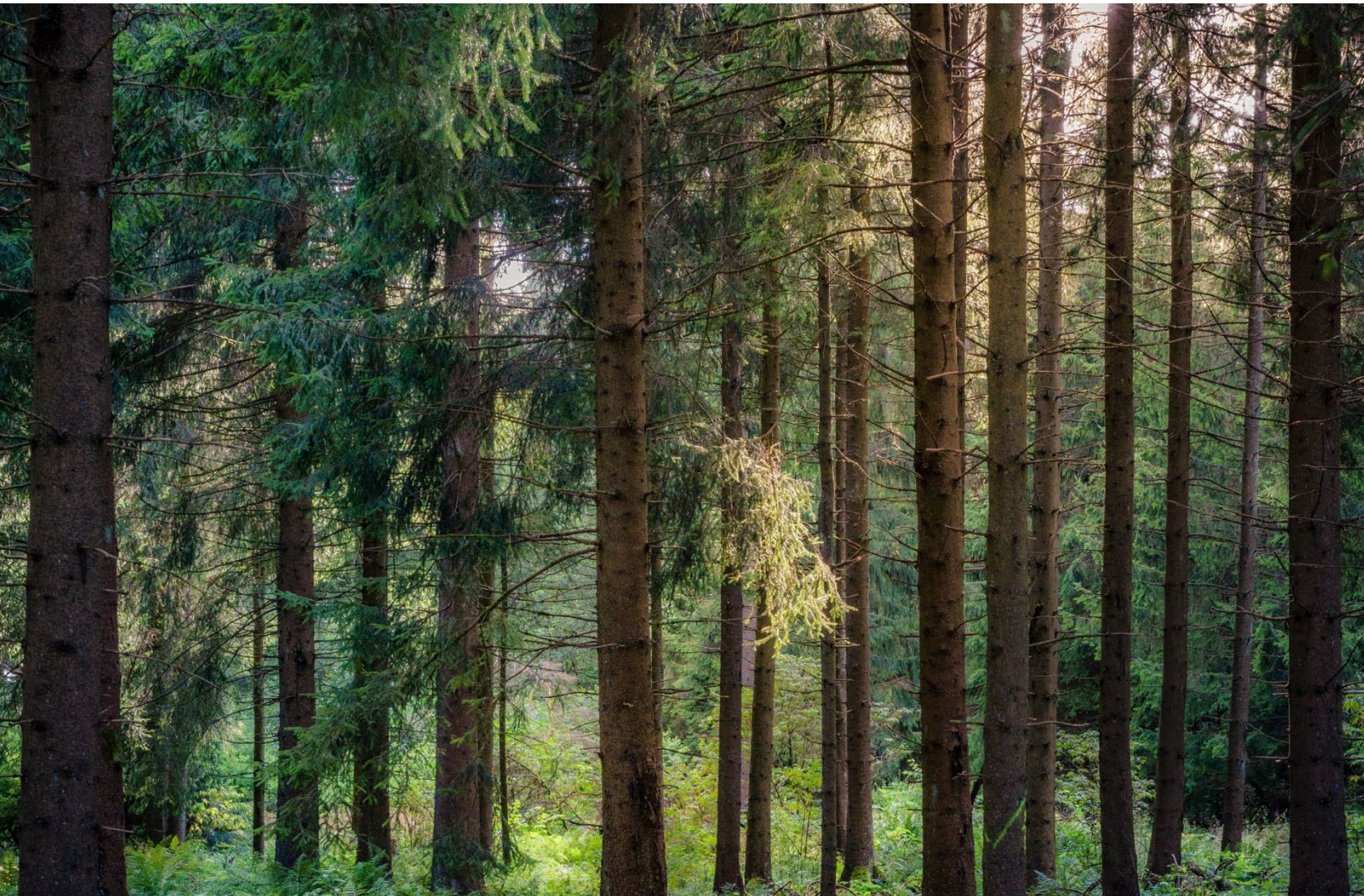
	Supporting documentation that could be requested by Energy Safety (not exhaustive)	Applicable Questions
	leaders and workers. Include how the incentives are tracked, measured, and distributed and who is eligible for these incentives.	
8	Examples of the wildfire metrics and reports reviewed by senior operational leadership beyond those required by the WMP process.	2.1.3, 2.2.1
9	Minutes, notes, and action items from the last 3-4 highest level operational safety meetings for wildfire management (the senior team charged with monitoring wildfire mitigation actions).	2.2.2
10	Examples of how the wildfire metrics are shared with frontline supervisors and workers. Describe how these are communicated.	2.2.3
11	Root cause analysis reports from the 3-5 most recent incident investigations that were not required to be reported to the CPUC or other regulatory body. Include corrective actions taken and the status of those actions.	3.1.1, 3.1.2, 3.1.3
12	A description of the process used for wildfire hazard recognition and the system used for tracking and communication. Describe actions taken as a result of hazards that surfaced over the past 6 months.	3.2.1
13	A spreadsheet of the last 50 wildfire hazard incidents (or potential incidents) recorded in the incident database including all demographic information (location, date, departments involved), type of incident (near miss,[62] recordable, equipment damage, etc.) and actions taken.	3.3.1
14	A description of the systems, processes, and/or structures that are used to capture, share, and implement best practices and lessons learned from incidents.	3.3.3
15	A description of the audit processes used for activities related to wildfire mitigation, detailing how they are conducted, their frequency, and how audit findings are tracked to closure.	3.4.1
16	The most recent audit conducted of a site or department on activities related to wildfire mitigation. Include the site or department's action plan based on the audit.	3.4.2

---

[62] Near miss: here, an unplanned event that did not result in injury, illness, or damage, but had the potential to do so. In other contexts, Energy Safety uses the term "risk event" instead of "near miss" but has left "near miss" here as it is a more commonly understood term in the safety culture context.

6. Conclusion

The 2022 update to the Safety Culture Assessment Guidelines for Electrical Corporations provides a pathway for utilities to participate in Energy Safety's annual Safety Culture Assessment process required under California Public Utilities Code Section 8389(d)(4).

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 different utilities' relative strengths and opportunities in designing and implementing a strong safety culture. Energy Safety ultimately seeks to assess safety culture outcomes over time and incorporate continuous learning into the SCA process.

GLOSSARY

GLOSSARY

Term	Definition
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.
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 associated with serious or fatal incidents.

Term	Definition
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.
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.
Near Miss	An unplanned event that did not result in injury, illness, or damage, but had the potential to do so.
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.

Term	Definition
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.

DATA DRIVEN
FORWARD-THINKING
INNOVATIVE
SAFETY FOCUSED

OFFICE OF ENERGY
INFRASTRUCTURE
SAFETY