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May 3, 2021

Advice 6182-E

(Pacific Gas and Electric Company U 39 E)

Public Utilities Commission of the State of California

Subject: Pacific Gas and Electric Company's Quarterly Advice Letter Pursuant

to the Wildfire Safety Division's Compliance Operational Protocols and Assembly Bill 1054 Regarding the Implementation of Its Approved

Wildfire Mitigation Plan and Its Safety Recommendations

Pursuant to California Public Utilities Code (PUC) Section 8389(e)(7) and the Wildfire Safety Division's (WSD) *Compliance Operational Protocols* issued on February 16, 2021 (Compliance Operational Protocols), Pacific Gas and Electric Company (PG&E) respectfully submits this Tier 1 Quarterly Advice Letter (QAL) detailing the status of its current wildfire mitigation plan, recommendations of the most recent safety culture assessment, recommendations of the board of directors' safety committee meetings that occurred during the quarter, and a summary of the implementation of safety committee recommendations from the previous QAL submittal (if any).

Background

On July 12, 2019, Governor Newsom signed Assembly Bill (AB) 1054 into law adding Section 8389(e)(7) to the California Public Utilities Code. Section 8389(e)(7) requires, as one of the conditions to the executive director of the Commission issuing a safety certification, documentation of the following:

The electrical corporation is implementing its approved wildfire mitigation plan. The electric corporation shall file a Tier 1 advice letter on a quarterly basis that details the implementation of both its approved wildfire mitigation plan and recommendations of the most recent safety culture assessment, and a statement of the recommendations of the board of directors' safety committee meetings that occurred during the quarter. The advice letter shall summarize the implementation of the safety recommendations from the electrical corporation's previous advice letter filing. If the division has reason to doubt the veracity of the statements contained in the advice letter filing, it shall perform an audit of the issue of concern.

On February 16, 2021, WSD issued the Compliance Operational Protocols which provided further guidance and requirements for electrical corporations filing QALs in addition to the existing requirements established by Section 8389(e)(7). Specifically, the Compliance Operational Protocols standardized the QAL submission dates across electrical corporations, describe the information and materials to be included in the QAL, and also require the submission of Wildfire Mitigation Plan (WMP) initiative progress in a separate document referred to as the Quarterly Initiative Update (QIU).

This QAL submission is for the first quarter (Q1) of 2021 pursuant to the requirements of AB 1054 and the Compliance Operational Protocols. PG&E notes that Section 8389(e)(7) refers to the implementation of an *approved* WMP. We submitted our 2021 WMP on February 5, 2021 and its approval by WSD and the Commission is still pending. However, PG&E has started implementing the initiatives and programs described in the 2021 WMP. Thus, this QAL addresses the implementation of the 2021 WMP for Q1 2021.

Q1 2021 Update

WMP Regulatory Background and Scope of QAL:

As indicated above, PG&E submitted our 2021 WMP on February 5, 2021.¹ On March 17, 2021 and April 22, 2021, we provided errata for our 2021 WMP. In the 2021 WMP, PG&E described approximately 140 initiatives. We also highlighted 53 commitments for 2021 in Table PG&E-7.1-1 of our 2021 WMP.² The 53 commitments represent areas that "we are focused on delivering for 2021 (by the next annual update)."³

Our Q1 2021 QIU, which is being submitted concurrent with this QAL, provides progress updates for all of the initiatives described in our 2021 WMP. To minimize repetition between the QAL and the QIU, this submission will focus on providing additional details associated with the 53 commitments.

2021 WMP Commitments Summary:

A table of all 53 commitments including the current status is provided in Appendix 1. A summary of the status of these commitments, broken down by 2021 WMP Area is provided in Table 1 below. The Compliance Operational Protocols indicated that five potential status designations should be used for each initiative or commitment.⁴ The Compliance Operational Protocols also indicated that electrical corporations should use the same format and colors as used by Southern California Edison Company in a July

¹ PG&E's 2021 WMP is available at www.pge.com/wildfiremitigationplan.

² 2021 WMP at pp. 280-287.

³ 2021 WMP at p. 280.

⁴ Compliance Operational Protocols at p. 9 (indicating status should be: completed, in progress, planned, delayed, or cancelled).

2019 Report (SCE Report).⁵ Because the status designations in the Compliance Operational Protocols differed from the status designations in the SCE Report, we used the designations in the Compliance Operational Protocols for both the QAL and the QIU.⁶ In this QAL, as well as in the QIU, we did try to match the colors from the SCE Report. In Table 2 below, we provide the color schema used in the QAL and the QIU for the five status designations included in the Compliance Operational Protocols.

Table 1: Summary of 53 2021 WMP Commitments

2021 WMP Area	Completed	In Progress	Planned	Delayed	Cancelled	Total
A. Risk Assessment and Mapping		6				6
B. Situational Awareness and Forecasting	2	14				16
C. Grid Design and System Hardening		13		2		15
D. Asset Management and Inspections		1		3		4
E. Vegetation Management and Inspections	1	1		1		3
G. Data Governance		2				2
I. Emergency Planning and Preparedness		2				2
J. Stakeholder Cooperation and Community Engagement		3				3
K. Protocols on Public Safety Power Shutoff		2				2
Total	3	44	0	6	0	53

Table 2: Mapping of Status Designation and Color Schema

SCE Report	Completed	On Track	Not Started	Off Track	N/A
QAL/QIU	Completed	In Progress	Planned	Delayed	Cancelled

Details of 6 Delayed Commitments in PG&E's 2021 WMP:

In this section of the QAL, we provide information regarding the six delayed commitments. In Table PG&E-7.1-1, we provided a Unique ID for each commitment. Below, we have included the Unique ID, the name of the activity, a brief description of the activity, and the

⁵ Compliance Operational Protocols at p. 9.

⁶ The Compliance Operational Protocols indicated the same five status designations for the QIU as are used in the QAL. See Compliance Operational Protocols at p. 6 (indicating status designations for QAL are completed, in progress, planned, delayed, and cancelled).

current status. In addition, it is important to note that in the discussion below, we refer to quarterly targets for certain commitments. These quarterly targets are generally not included in the 2021 WMP, but instead represent our internal targets in order that we can meet the annual target specified in the 2021 WMP for a commitment. However, we felt it was important to share with the Commission, WSD, and stakeholders our internal quarterly targets for these commitments to provide full transparency on where we expected to be by the end of Q1 2021 and where we are in terms of progress. We have also indicated below if we have a plan in place to get a specific commitment back on track.

C.06 Distribution Sectionalizing (automated devices): This commitment involves the installation of 250 distribution sectionalizing devices by December 31, 2021. Through Q1, 12 devices have been installed, which falls short of the Q1 target of 30. This commitment had a slow start in Q1 due to emergency events in January and February (Public Safety Power Shutoff (PSPS) and Wind Events). These emergency events delayed identifying and scoping all 2021 distribution sectionalizing projects, which was not completed until February. 67 units are forecasted to be installed in April to get this commitment on track.

C.08 Distribution line legacy 4C Controllers: This commitment involves the replacement of all remaining distribution line legacy 4C controllers that are in Tier 2 and Tier 3 High Fire Threat District (HFTD) areas by December 31, 2021. In the 2021 WMP, we estimated approximately 84 remaining distribution line legacy 4C controllers located in Tier 2 and Tier 3 HFTD areas. Of these 84 units, 4 were completed in 2020, which resulted in the 2021 target being reduced to 80. Through Q1, 2 devices have been replaced, which falls short of the Q1 target of 38. This commitment primarily had a slow start in Q1 due to emergency events in January and February (PSPS and Wind Events) and a reprioritization of the work plan in February. While this commitment experienced early delays, pre-construction activities on the remaining controllers targeted for 2021 have progressed with 50 controllers ready for construction, and 30 have already been scheduled for Q2 with the remaining 20 to be scheduled by early May. We believe that we are on track for meeting the full year target of replacing all 80 remaining distribution line legacy 4C controllers that are in Tier 2 and Tier 3 HFTD areas.

D.01 Distribution HFTD Inspections: This commitment involves enhanced inspections of overhead distribution assets at specified recurrence intervals by July 31, 2021. Through Q1, 21,351 poles have been inspected, which falls short of the Q1 target of 49,266. Pre-execution dependencies involving final workplan approvals, contractor selection, and onboarding with technology enhancements caused the program to fall behind, but resources are onboard and inspection volumes are expected to increase significantly in Q2 in alignment with meeting the July 31, 2021 completion commitment.

D.02 Substation HFTD Inspections: This commitment involves completing enhanced inspections on substation and power generation switchyard assets at specified recurrence intervals by July 31, 2021. Please note that the revised 2021 target of 141

Transmission & Distribution substations and Power Generation switchyards (i.e., Hydroelectric substations) reflects counting co-located Power Generation switchyards and Transmission & Distribution substations separately as two distinct units. This counting methodology has been implemented starting in 2021 as a result of process improvements arising out of the March 4, 2021 update letter regarding missed inspections in 2020.

Through Q1, 0 substations have been fully inspected, which falls short of the Q1 target of 13. Although the actual units appear to be significantly behind schedule, there has been progress made. Full substation enhanced inspections are counted as completed when all three planned inspection types (ground, aerial, and infrared) are completed. The table below reflects the number of partial inspections on the substations for each of the three inspection types as of Q1.

Inspection Type	# of Partial Inspections completed on Substations as of Q1 2021
Ground	0
Aerial	2
Infrared	14

This initiative fell behind at the end of Q1 due to delays with pre-execution dependencies involving final workplan approvals, contractor selection and onboarding, and technology enhancements. Resources are in place to support increased inspection volumes in Q2 to ensure completion of all 141 substations and power generation switch yards by the July 31, 2021 commitment due date.

D.03 Transmission HFTD Inspections (structures): This commitment involves enhanced inspections of transmission structures. Through Q1, 264 structures have been fully inspected, which falls short of the Q1 target of 4,858. Although the actual units appear to be significantly behind schedule, there has been progress made. Full Transmission WMP inspections units are counted when all three planned inspection types (ground, climbing, and aerial) are completed. The table below reflects the number of partial inspections on the transmission structures for each of the three inspection types as of Q1. The data in the table below is inclusive of the 264 fully inspected transmission structures.

Inspection Type	# of Partial Inspections on Transmission Structures as of Q1 2021
Ground	5,571
Aerial	795
Climbing	380

This initiative fell behind plan at the end of Q1 due to delays with pre-execution dependencies involving final workplan approvals, contractor selection and onboarding and with technology enhancements. Resources are in place to support increased

inspection volumes in Q2 to ensure completion by the July 31, 2021 commitment due date.

E.01 EVM (line miles): This commitment involves performing Enhanced Vegetation Management (EVM) on approximately 1,800 circuit miles of distribution facilities in Tier 2 and Tier 3 HFTD areas. Through Q1, 32 miles have been cleared, which falls short of the Q1 target of 126 miles. This commitment had a slow start in Q1 due to changes in the 2021 EVM Scope of Work. Changes to the 2021 EVM Scope of Work will described in more detail in our response to Resolution M-4382 (*i.e.*, PG&E's Corrective Action Plan in response to Enhanced Oversight and Enforcement Step 1). PG&E's Vegetation Management Team is working to address this delay and move forward with EVM work. The 2021 EVM workplan continues to be refined to ensure the highest risk circuits are addressed and this has resulted in work execution resources being shifted and redeployed across regions to align with the revised workplan.

Recommendations of Board of Directors' Safety Committee Meetings During Q1 2021

The PG&E Board of Directors' Safety and Nuclear Oversight (SNO) Committee is an important part of PG&E's Board-level oversight of safety, enterprise risk, and other matters. A SNO Committee also concurrently exists at the PG&E Corporation Board (together referred to as the "SNO Committees" or "Committees").

During the first quarter of 2021, the SNO Committees held a meeting on February 10 and a joint meeting with the Audit Committees on the same day, February 10.

During the February 10th meeting, the SNO Committees received a safety tailboard on the Near Hits program and enhancements and a detailed safety performance update, including discussion of Serious Injuries or Fatalities (SIF) actual events. The Committees also received an update on the 2025 Workforce Safety Improvement plan and nuclear performance. The Committees reviewed results from the 2020 PSPS events and stakeholder feedback, as well as the PSPS program goals for 2021. The Committees received an update on an enterprise-wide risk factor related to severe workforce disruption. Lastly, the Committees received an update on the fourth Quarter Wildfire Mitigation Plan and Probation Terms Report.

During the February 10th joint meeting, the SNO Committees and Audit Committees jointly reviewed the Internal Audit report for the fourth quarter of 2020. The SNO Committees primary focus is reports related to operational audits.

There is an ongoing dialogue between the Chair of the SNO Committees and management, with frequent engagements around the implementation of the workforce safety strategy, safety performance updates and corrective actions in the normal course of business. Additionally, the SNO Committees made the following specific safety-related recommendations to management during the first quarter of 2021:

- Complete a review of induction risk, current controls, gaps, and design an improvement plan. Consider requiring multi-point grounding when it's available.
- Establish practice of verifying closure of action items coming from SIF investigations a year after they were implemented.
- Discuss with other utilities the impact of COVID 19 on mutual aid agreements.

Implementation of Recommendations/Guidance and Direction Described in Q4 2020 QAL (Advice Letter 6068-E)

The following summarizes actions that management has taken to implement guidance and direction from the SNO Committees that was described in Advice Letter 6068-E for the fourth quarter of 2020.

- Recommendation #1: Continue to improve employee and contractor adherence to new contracting processes.
 - <u>Management's response</u>: Management has undertaken a project to improve the Procure-to-Pay process, including actions to improve adherence by employees and contractors. Management is also implementing enterprise standards and procedures to clarify performance expectations and roles and responsibilities for employees and contractors.
- Recommendation #2: Create a standard lexicon of terminology for the WMP to ensure materials presented externally are clear and consistent.
 - <u>Management's response</u>: Management has reviewed the WMP terminology and taken specific actions to make it more understandable and less reliant on acronyms. Implementation is ongoing.
- Recommendation #3: Consider outsourcing and/or minimizing bare-handing work through coordination with the California Independent System Operator to do work on de-energized lines.
 - <u>Management's response</u>: Any future decision to re-start bare-handing has to be approved by corporate safety, after consultation with an objective, external third-party.

- Recommendation #4: Provide the Committee with insight into safety practices with regard to helicopter operations particularly during PSPS events.
 - <u>Management's response</u>: Management discussed current practices with regard to all aspects of helicopter operations with the SNO Committees.
- Recommendation #5: Provide the Committee with additional information on the Safety Barometer employee survey and any resulting adjustments to the current 2025 Workforce Safety Strategy.
 - <u>Management's response</u>: Management completed this recommendation with a discussion on the Safety Barometer and implementation of improvements identified through the Safety Barometer.
- Recommendation #6: Present additional data on restoration times and customer impacts.
 - <u>Management's response</u>: Management provided additional data on restoration times and customer impact to the Boards.
- <u>Recommendation #7</u>: Define and present on key metrics for the 2021 WMP along with current challenges/opportunities. Review WMP progress at every meeting of SNO Committees.
 - <u>Management's response</u>: Management provided key metrics for the 2021 WMP to the SNO Committees. Progress of the WMP is reviewed at each Committee meeting.
- <u>Recommendation #8</u>: Submit the 2021 risk-informed project execution plans for System Hardening and Enhanced Vegetation Management and key wildfire risk reduction mitigations with monthly updates on progress.
 - <u>Management's response</u>: Management provides monthly reports to the Board as a result of this recommendation.

Protests

Due to the COVID-19 pandemic, PG&E is currently unable to receive protests or comments to this advice letter via U.S. mail or fax. Please submit protests or comments to this advice letter to EDTariffUnit@cpuc.ca.gov and PGETariffs@pge.com

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile or E-mail, no later than **May 24**, **2021**, which is 21⁷ days after the date of this submittal. Protests must be submitted to:

CPUC Energy Division ED Tariff Unit 505 Van Ness Avenue, 4th Floor San Francisco, California 94102

Facsimile: (415) 703-2200

E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Sidney Dietz
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582 E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

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⁷ The 20-day protest period concludes on a weekend; therefore, PG&E is moving this date to the following business day.

Effective Date

Pursuant to General Order (GO) 96-B, Rule 5.1, this advice letter is submitted with a Tier 1 designation. PG&E requests that this **Tier 1** advice submittal become effective upon date of submittal, which is **May 3, 2021.**

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list **and the parties on the service list for R.18-10-007, R.18-12-005, and I.15-08-019.** Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: http://www.pge.com/tariffs/.

/S/

Sidney Dietz Director, Regulatory Relations

Attachments

cc: Service Lists R.18-10-007, R.18-12-005, and I.15-08-019.

APPENDIX 1: 2021 WMP Commitments

Plan Area	2021 WMP Commitment	s – (progress as of 03/31) ⁸		
A. Risk Assessment and Mapping	A.01- Match Drop Simulations (24 additional hours of forecast data)	A.02 - Match drop simulations (update fuel model layers)	A.03 - Re-Train Vegetation and Equipment Probability of Ignition Models	A.04 - Risk Mapping Improvements (Transmission)
	A.05 - Risk Mapping Improvements (Distribution)	A.06 - Model PSPS customer impacts at circuit level		
	B.01 - Numerical Weather Prediction	B.02 - Enhancements to Fuel Moisture Sampling and Modeling efforts	B.02 – Enhancements to Fuel Moisture Forecasting	B.04 - Enhancements to Weather Station Project (Installations and Optimization)
B. Situational Awareness and	B.05 - Enhancements to Weather Station Project (Wind Gust Model)	B.06 - Medium- to Seasonal-Range Diablo Wind Forecasting	B.07 - Information Sharing	B.08 - SmartMeters™ - Partial Voltage Detection
Forecasting	B.09 - Sensor IQ Pilot Deployment ⁹	3	B.11 - Enhancements to Fire Potential Index (FPI) Model	B.12 - Safety and Infrastructure Protection Team (SIPT) Staffing
	B.13 - Enhancements to Outage Producing Wind (OPW) Model	B.14 - Wildfire Safety Operations Center (WSOC) - Procedure Update	B.15 - Wildfire Safety Operations Center (WSOC) - Expand Active Incidents Visibility	B.16 - HD Cameras
	C.01 - Assess Motorized Switch Operator (MSO) switches		C.03 - Generation for PSPS Mitigation (Substation Distribution Microgrids)	C.04 - Emergency Back-up Generation – PG&E Service Centers & Materials Distribution Centers
C. Grid Design and	C.05 - Remote Grid	C.06 - Distribution Sectionalizing (automated devices)	C.07 - Transmission Switches	C.08 - Distribution line legacy 4C controllers
System Hardening	C.09 - Fuse Savers (Single phase reclosers)	C.10 - Rapid Earth Fault Current Limiter (REFCL) Pilot	C.11 - Expulsion Fuse Replacement (non-exempt equipment)	C.12 - Surge Arrester Replacements
	C.13 - System Hardening (line miles)	C.14 - Butte County Rebuild	C.15 - System Hardening - Transmission Conductor	
D. Asset Mgmt. and Inspections		D.02 - Substation HFTD Inspections (substations)	D.03 - Transmission HFTD Inspections (structures)	D.04 - Infrared Inspections of Transmission Electric Lines and Equipment

⁸ Red dotted outline = Commitment is partially or completely due prior to the end of 2021 (12/31) Status color: Purple = Completed; Green = In Progress; Grey = Planned; Red = Delayed; White = Cancelled

E. Vegetation Management	E.01 - EVM (line miles)	E.02 - VM Community and Environmental Engagement	E.03 - VM Transmission Right of Way Expansion	
G. Data Governance		G.02 - Cal Poly Wildland Urban Interface (WUI) Fire Information Research and Education (FIRE) Institute		
I. Emergency Planning and Preparedness	I.01 - Staffing to Support Service Restoration	I.02 - Trained Workforce for Service Restoration		
J. Stakeholder Cooperation and Community Engagement	J.01 - Community Based Organizations (CBOs) Coordination	J.02 - Community Engagement	J.03 - Customer and Community Outreach	
K. Protocols on Public Safety Power Shutoff	K.01 - Customer and Agency Outreach During PSPS Events	K.02 - Mitigate Impacts on De-Energized Customers		





California Public Utilities Commission

ADVICE LETTER



ENERGY UILLIY	OF CALL				
MUST BE COMPLETED BY UT	ILITY (Attach additional pages as needed)				
Company name/CPUC Utility No.: Pacific Gas at	nd Electric Company (U 39 E)				
Utility type: LEC GAS WATER PLC HEAT	Contact Person: Stuart Rubio Phone #: (415) 973-4587 E-mail: PGETariffs@pge.com E-mail Disposition Notice to: SHR8@pge.com				
EXPLANATION OF UTILITY TYPE ELC = Electric GAS = Gas WATER = Water PLC = Pipeline HEAT = Heat WATER = Water	(Date Submitted / Received Stamp by CPUC)				
Advice Letter (AL) #: 6182-E	Tier Designation: 1				
Subject of AL: Pacific Gas and Electric Company's Compliance Operational Protocols a Wildfire Mitigation Plan and Its Safe	Quarterly Advice Letter Pursuant to the Wildfire Safety Division's and Assembly Bill 1054 Regarding the Implementation of Its Approved ety Recommendations				
Keywords (choose from CPUC listing): Compliant AL Type: Monthly Quarterly Annual AL submitted in compliance with a Commission					
Does AL replace a withdrawn or rejected AL?	f so, identify the prior AL: $_{ m No}$				
Summarize differences between the AL and th	e prior withdrawn or rejected AL: $ m N/A$				
nondisclosure agreement. Name and coaccess to confidential information:	☑ No nation: vailable to appropriate parties who execute a ontact information to request nondisclosure agreement/				
Resolution required? Yes No Requested effective date: 5/3/21	No of tariff choots as / /				
Estimated system annual revenue effect (%): N	No. of tariff sheets: $_{ m N/A}$				
Estimated system average rate effect (%): N/A	A.				
When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).					
Tariff schedules affected: $_{ m N/A}$					
Service affected and changes proposed $^{1:}$ $_{\mathrm{N/A}}$	A				
Pending advice letters that revise the same tai	iff sheets: $_{ m N/A}$				

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division Attention: Tariff Unit 505 Van Ness Avenue San Francisco, CA 94102

Email: EDTariffUnit@cpuc.ca.gov

Name: Sidney Dietz, c/o Megan Lawson Title: Director, Regulatory Relations

Utility Name: Pacific Gas and Electric Company Address: 77 Beale Street, Mail Code B13U

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Telephone (xxx) xxx-xxxx: (415)973-2093 Facsimile (xxx) xxx-xxxx: (415)973-3582

Email: PGETariffs@pge.com

Name:

Title:

Utility Name: Address:

City:

State: District of Columbia

Zip:

Telephone (xxx) xxx-xxxx: Facsimile (xxx) xxx-xxxx:

Email:

Attachment A

Safety and Culture Governance Quarterly Report

PACIFIC GAS AND ELECTRIC COMPANY SAFETY CULTURE AND GOVERNANCE QUARTERLY REPORT NO. 10-2021 IN COMPLIANCE WITH CPUC DECISION 18-11-050 SUBMITTED APRIL 30, 2021



PACIFIC GAS AND ELECTRIC COMPANY SAFETY CULTURE AND GOVERNANCE QUARTERLY REPORT NO. 10-2021

IN COMPLIANCE WITH CPUC DECISION 18-11-050 SUBMITTED APRIL 30, 2021

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PACIFIC GAS AND ELECTRIC COMPANY SAFETY CULTURE AND GOVERNANCE QUARTERLY REPORT NO. 10-2021 IN COMPLIANCE WITH CPUC DECISION 18-11-050

I. Introduction: PG&E's Safety Focus

In January 2021, Patti Poppe joined as Chief Executive Officer of PG&E Corporation, Pacific Gas and Electric Company's (PG&E) holding company. She brings a wealth of experience in the utility industry, including improving safety culture. Ms. Poppe has brought a fresh approach to the way we talk about safety – one that emphasizes the human impact of our decisions, actions and safety incidents. The way she talks about "coworkers" (and not "employees or contractors," which has been our vernacular for years) underscores our shared obligation to look out for each other's safety. She emphasizes that everyone should know that they are "loved by their leader," which means that there is a genuine care and concern for their safety and well-being – regardless of job or rank.

She is directing a Lean Operating strategy and a team is implementing a Lean system with One Purpose, One Mission, One Team and One Vision. The operating system aligns leadership to work cross-functionally on business goals, not individual goals. There are four basic plays in this Lean Operating system: Visual management, operational reviews, problem solving and standard work. Lean operating practices drive simplification of processes, break down silos and empower teams closest to the work to solve problems. Implementing lean operations is a journey that will help change our culture. Ms. Poppe is supported in this journey with our new Pacific Gas and Electric Company executive leadership team, including Adam Wright (EVP, Operations and COO), Marlene Santos (EVP and Chief Customer Officer) and, in May 2021, Jason Glickman (EVP, Engineering, Planning and Strategy).

Also, during the first quarter of 2021, California experienced improvement in the number of COVID-19 virus cases, and increased supplies of vaccines that has led to fewer restrictions for all Californians. While PG&E embraces the re-opening of the state, PG&E has also remained vigilant about safeguarding everyone's health and safety by extending work-from-home guidance and, consistent with state and county health guidance, maintaining the requirements of social distancing and mask wearing, both indoors and outside when others are present.

Another challenge PG&E is preparing for is the hot and dry weather conditions and the associated high-risk wildfire conditions. On February 5, 2021, PG&E submitted its 2021 Wildfire Mitigation Plan (WMP) in compliance with California Senate Bill (SB) 901, Assembly Bill (AB)1054 and direction from the California Public Utilities Commission's (CPUC) Wildfire Safety Division. The 2021 WMP updates PG&E's comprehensive Community Wildfire Safety Program (CWSP), incorporates lessons learned from the 2020 wildfire season, and outlines additional programs planned to continue reducing the risk of catastrophic wildfires. Another potential impact of the onset of hot and dry conditions is heat illness. In 2020, PG&E experienced a spike of 7 heat illness related DART cases. For these

reasons, PG&E began a heat illness prevention campaign in April well in advance of the summer months.

Tragically on March 9, a contract coworker was fatally injured when a third-party vehicle left the roadway and struck her while she was performing inspection work off the roadway. The incident investigation is complete and while PG&E cannot prevent a vehicle from leaving the roadway, we are implementing measures to increase visibility of our coworkers, and where possible installing temporary barriers and redesigning the workflow to reduce exposure. This incident accounts for our one serious injury and fatality (SIF) actual year-to-date. We have seen improvement in our non-fatal SIF actual events – with zero occurring in Q1 2021. Through Q1 2021, 63% of SIF incidents (potential and actual) have involved contractors. Additionally, there has been improvement in the 2021 12-month rolling DART rate, which has declined 10% from December 2020. In addition, 92% of our SIF corrective actions have been closed on time and 100% of our SIF investigations were completed in under 30 days.

Our customers and communities deserve the assurance that we deliver their electricity and natural gas safely and reliably. We are focused on demonstrating, through our actions, that we are working every day toward improved outcomes. We know that restoring trust can only come through sustained performance and accountability.

This report addresses our work and progress toward NorthStar Consulting's recommendations from January 1, 2021 through March 31, 2021, and is detailed in this report as follows:

- Executive Summary
- Conclusion
- Appendix: Sustainability Update, Board of Directors Reporting and Safety Program Updates

II. Executive Summary

A. Safety Performance

In addition to the contractor fatality on March 9, PG&E experienced seven potential serious injury and fatality (SIF potential) events so far this year.

On January 13, a contract tree climber fell from a redwood tree approximately 30' to 35' high and sustained injuries.

- 1. On January 24, a motor vehicle incident involved three PG&E vehicles, one each from Electric Operations, Gas Operations and Supply Chain. The event involved snowy/icy road conditions and a blind curve where the vehicles lost traction. The involved Gas Operations employee was nearly hit while outside his vehicle by the Supply Chain delivery vehicle. These employees were supporting the establishment of a micro laydown yard in the area due to a snow event. There were no injuries.
- 2. On January 25, an incident occurred involving a contract crew who were changing out primary and secondary crossarms. The supervisor arrived on site and saw two linemen working without proper protective equipment.

The supervisor stopped the work to address the safety violation. No injuries were sustained.

- 3. On January 29, a coworker was driving on a dirt and gravel roadway checking storm damage when the roadway failed and gave away. The vehicle rolled several times downhill and came to rest on the driver side 150' feet below. There were no significant injuries.
- 4. On March 2, a coworker was in a lift installing a 6" aluminum bus when the boom on the grade suddenly came down and hit his left shoulder pressing him against the lift basket and sustaining injuries.
- 5. On March 4, a contract tree trimmer was performing vegetation management when a 15-foot-long by 6-inch diameter tree branch that he was tied off to snapped. The contractor fell 20-feet to the ground and sustained injuries.
- 6. Finally, also on March 4, during a pole replacement, a contract coworker was relocating a gravel bag from ground to a track machine. The boom operator swung toward the track machine striking the field phase resulting in a circuit interruption. No injuries were sustained.

In light of the safety incidents involving our contract coworkers, PG&E is strengthening the **contractor safety** management program by implementing additional rigor into the management processes. These enhancements include eliminating subjective criteria in the prequalification process, establishing requirements for contractors to perform observations on their employees and to provide a summary of findings to PG&E, requiring on-site supervision for high-risk work, standardizing safety plans and the approval process, and increasing observations and inspections performed by PG&E safety specialists. PG&E is developing 16 vegetation management procedures to set standardized expectations for this work area. We have also established a Contractor Safety Council for Vegetation Management to help drive improvements in this high-risk area.

In addition, PG&E has established a daily incident report that is sent to all employees and a weekly incident review meeting. Measures are in place to improve **transportation safety** and address the increase in preventable motor vehicle incidents. An example of such a measure involves driver rodeos. A driver rodeo allows drivers to practice their driving skills including managing a vehicle during a skid and practicing braking distance skills. Additionally, PG&E is implementing a new National Safety Council (NSC) distracted driving course that all coworkers who drive a vehicle for business purposes will be required to complete.

B. Observations and Interventions

The safety expertise of the field safety specialists is utilized to complete objective **safety observations**. This group logged a total of 3,281 observations from January 1, 2021 through March 31, 2021. By the end of Q1, 730 supervisors completed the safety leadership development training since the program's inception. This training equips field leadership with the skills and tools necessary to carry out effective safety connections, coaching and observations. The Field Safety organization met with front line

supervisors across the service territory to provide in-person field leadership coaching and discuss PG&E's discipline program and how it relates to safety.

With work-from-home status continuing for many employees through Q1 2021, nearly two thousand **office ergonomic** workstation evaluations and 4,039 follow-ups were completed. An ergonomic strategy for office reintegration post-COVID has been developed. The **industrial ergonomics** program is partnering with line of business personnel and a third-party company (Humantech), this program includes measuring task risk utilizing a video of a person performing a task, which is uploaded into their system to be analyzed and a risk score determined for body parts. In Q1, risk was reduced 45.5% on the task of transporting a tamper tool, which is a tool used when patching pavement. Additionally, eight new high-risk tasks were identified and analyzed in Q1. The **vehicle ergonomics** team performed 183 ergonomic assessments. All these ergonomic interventions help to reduce the risk of musculoskeletal injuries in the office, field or while driving.

C. Safety Culture

Safety Survey action planning, including owner assignments for the identified opportunities, was completed; results were shared in Q4 2020. Implementation of the action plans has begun and are expected to be completed by Q3 2021. Action plan examples include: increasing safety presence in our New Employee Orientation and developing a communication protocol for observation reporting. Additionally, the lines of business action planning effort began by utilizing two workshops, which were facilitated by the National Safety Council (NSC) and attended by a core group from each line of business. The output from these workshops was a list of lower-performing components selected by each team that require improvement and an action plan for implementation for each line of business. These improvement initiatives are geared to strengthen the safety culture and coworker perceptions at PG&E.

Subsequent to the November pilot of **Safety Connections** involving senior leaders in the non-operations segments of PG&E, the remaining program target population received training and began executing field visits which include robust safety conversations with field crews. Our senior leaders carried out seventy-four Safety Connections during Q1.

D. Safety Assurance

A corporate safety audit program standard and supporting tools were developed and piloted. An **Independent Safety Oversight Committee** (ISOC) assessment of the Shared Services organization was completed, and Electric Operations will be assessed in Q2.

III. Conclusion

Consistent with PG&E's previous quarterly Reports, the Appendix has a progress update on the Workforce Safety Strategy, including first quarter 2021 safety performance. PG&E also certifies the ongoing execution of NorthStar's recommendations.

Attachment 1 to this Report includes approved Boards of Director (BOD) and Safety and Nuclear Oversight (SNO) Committee meeting minutes.

Attachment 2 to this report includes the completion narrative for NorthStar recommendation IX-1. This 2019 additional recommendation was completed in Q4 2020, and we are now sharing that updated completion narrative.

PG&E recognizes and remains committed to improving safety culture and safety performance. The focus is building an accountable, transparent organization that embraces raising issues and ideas, and acts upon resolving them. PG&E is moving quickly to sustain the progress we have made with the company's revamped safety strategy and validating areas for improvement in 2021.

APPENDIX

IV. Sustainability Update

A. Ongoing Execution and Sustainability

PG&E continues to execute on NorthStar's recommendations and has verified the sustainability of its Safety OII plans for the period of January 1, 2021, through March 31, 2021.

Compliance certifications for the first quarter of 2021 are shown in Table 1 below, and the status of the additional NorthStar recommendations is provided in Table 2.

TABLE 1
MATRIX OF SUSTAINABILITY PLANS

Line	DOOF Invalence of the Disc	Certification	Certification		Initial
No.	PG&E Implementation Plan	Due Date	Status(a)	Approver	Implementation
1	Safety Culture and Governance OII - F-2 _Supv in the Field_includes V-4	04/01/2021	Certified	Jan Nimick	Report No. 04-2019
2	Safety Culture and Governance OII - F-3 SLD includes VIII-1	04/01/2021	Certified	Mary King	Report No. 03-2019 Report No. 03-2019
3	Safety Culture and Governance OII - F-4 _Comprehensive Safety Strategy_includes III-2_III-3_V-3	04/01/2021	Certified	Francisco Benavides	Report No. 01-2018
4	Safety Culture and Governance OII - F-5 _Best Practice Coordination_includes IV-5_IV-6_IV-7_V-1_V-2_V-5	04/01/2021	Certified		Report No. 01-2018
5	Safety Culture and Governance OII - III-1 _Board Qualifications	04/01/2021	Certified	Brian Wong	Report No. 01-2018
6	Safety Culture and Governance OII - IV-2 _CSO_Org_Position	04/01/2021	Certified	Brian Wong	Report No. 01-2018
7	Safety Culture and Governance OII - F-1_OII Implementation Plan	04/01/2021	Certified	Francisco Benavides	Report No. 01-2018
8	Safety Culture and Governance OII - IX-1 _Safety Communication	04/01/2021	Certified	Keith Stephens	Report No. 01-2018
9	Safety Culture and Governance OII - IX-2 _Safety Culture Metrics	04/01/2021	Certified	David Hatton	Report No. 01-2018
10	Safety Culture and Governance OII - IX-3 _Reach Every Employee	04/01/2021	Certified		Report No. 01-2018
11	Safety Culture and Governance OII - III-5 _IA Safety Role	04/01/2021	Certified	Stephen Cairns	Report No. 01-2018
12	Safety Culture and Governance OII - IV-3 _Safety Dept Roles and Responsibilities_includes IV-4	04/01/2021	Certified	Francisco Benavides	Report No. 01-2018

TABLE 1 MATRIX OF SUSTAINABILITY PLANS (CONTINUED)

Line No.	PG&E Implementation Plan	Certification Due Date	Certification Status(a)	Approver	Initial Implementation
13	Safety Culture and Governance OII - IV-1 CSO Experience	04/01/2021	Certified	Francisco Benavides	Report No. 01-2018
14	Safety Culture and Governance OII - VI -1 _Separate Safety Expenditures-RAMP	04/01/2021	Certified	Stephanie Williams	Report No. 01-2018
15	Safety Culture and Governance OII - VI – 2 _Safety IPP_includes III-4	04/01/2021	Certified		Report No. 02-2019
16	Safety Culture and Governance OII - VI -3 _Risk and Bus Case Planning	04/01/2021	Certified		Report No. 02-2019
17	Safety Culture and Governance OII - VI -4 _PPM for Power Gen	04/01/2021	Certified		Report No. 03-2019
18	Safety Culture and Governance OII - VI -5 _Session D Link to Sessions 1 and 2	04/01/2021	Certified		Report No. 02-2019
19	Safety Culture and Governance OII - VII-1 _STIP and LTIP Metrics_includes VII-4_VII-5	04/01/2021	Certified		Report No. 02-2019
20	Safety Culture and Governance OII - VII-2 _Former STIP metric tracking	04/01/2021	Certified	Stephanie Williams	Report No. 01-2018
21	Safety Culture and Governance OII - VII-3 LTIP Safety Weight	04/01/2021	Certified		Report No. 02-2019
22	Safety Culture and Governance OII - VII-6 _BPR Metrics	04/01/2021	Certified	Stephanie Williams	Report No. 01-2018
23	Safety Culture and Governance OII - VII-7 _Expanded Best Practice Sharing	04/01/2021	Certified	Francisco Benavides	Report No. 02-2019
24	Safety Culture and Governance OII - VIII-10 _PwrGen Training Completion	04/01/2021	Certified		Report No. 01-2018
25	Safety Culture and Governance OII - VIII-11 _PwrGen Refresher Training	04/01/2021	Certified		Report No. 03-2019
26	Safety Culture and Governance OII - VIII-2 _Field-first Training Profiles	04/01/2021	Certified		Report No. 03-2019
27	Safety Culture and Governance OII - VIII-3 SLD 360	04/01/2021	Certified	Francisco Benavides	Report No. 01-2018
28	Safety Culture and Governance OII - VIII-4 _Mandatory Refresher Training	04/01/2021	Certified		Report No. 03-2019

TABLE 1 MATRIX OF SUSTAINABILITY PLANS (CONTINUED)

Line No.	PG&E Implementation Plan	Certification Due Date	Certification Status(a)	Approver	Initial Implementation
29	Safety Culture and Governance OII - VIII-5 _Human Performance Training	04/01/2021	Certified		Report No. 03-2019
30	Safety Culture and Governance OII - VIII-6 OQ Status Reporting	04/01/2021	Certified	Christine Cowsert	Report No. 01-2018
31	Safety Culture and Governance OII - VIII-7 _2014 OQ Review	04/01/2021	Certified	Christine Cowsert	Report No. 03-2019
32	Safety Culture and Governance OII - VIII-9 _PwrGen Apprentice Program	04/01/2021	Certified		Report No. 03-2019
33	Safety Culture and Governance OII - X-1 SEMS-CAP Integration	04/01/2021	Certified		Report No. 01-2018
34	Safety Culture and Governance OII - X-2 _CAP-NH Costs and Benefits	04/01/2021	Certified		Report No. 01-2018
35	Safety Culture and Governance OII - X-3 _CAP-NH Reporting Benefits	04/01/2021	Certified		Report No. 01-2018
36	Safety Culture and Governance OII - X-4 _IA Review of Serious Incident Investigations	04/01/2021	Certified		Report No. 01-2018
37	Safety Culture and Governance OII - X-5 _WGE Documentation Improvement	04/01/2021	Certified		Report No. 01-2018
38	Safety Culture and Governance OII - X-6 _Central Repository for Investigation info	04/01/2021	Certified		Report No. 01-2018
39	Safety Culture and Governance OII - X-7 _ Safety Communication Protocol	04/01/2021	Certified		Report No. 01-2018
40	Safety Culture and Governance OII - X-8 _Cause Evaluation Process includes X-9	04/01/2021	Certified		Report No. 02-2019
41	Safety Culture and Governance OII - XI-1 _Surprise Inspections for Cont Safety	04/01/2021	Certified		Report No. 01-2018
42	Safety Culture and Governance OII - XI-2 _Solely Responsible Cont Language	04/01/2021	Certified	Jamie Martin	Report No. 01-2018
43	Safety Culture and Governance OII - XI-3 _Cont Incident Closure Criteria	04/01/2021	Certified		Report No. 01-2018

TABLE 1 MATRIX OF SUSTAINABILITY PLANS (CONTINUED)

Line No.	PG&E Implementation Plan	Certification Due Date	Certification Status(a)	Approver	Initial Implementation
44	Safety Culture and Governance OII - XI-4 _Cont Safety best Practice Sharing	04/01/2021	Certified		Report No. 02-2019
45	Safety Culture and Governance OII - XI-5 _LOB Guidelines for Cont Safety	04/01/2021	Certified		Report No. 02-2019
46	Safety Culture and Governance OII - XI-6 _PwrGen Contractor On-boarding	04/01/2021	Certified	Jan Nimick	Report No. 01-2018
47	Safety Culture and Governance OII - V-6 Reduce Overall Mileage	04/01/2021	Certified		Report No. 02-2019

⁽a) MetricStream compliance certification status.

Note: Additional recommendations from NorthStar's Report – First Update (March 29, 2019) are certified in MetricStream under the plans in scope for the assessment (F-1, F-2, F-3, F-4, III-1, and IX-1). The table excludes "IX-4 Speak-up Effectiveness" and "VIII-8 OQ Feasibility Study", which do not require ongoing actions.

B. Additional NorthStar Recommendations

At the request of SED, NorthStar performed a secondary assessment of six PG&E Safety OII plans, established in response to recommendations from NorthStar's original report, 1 and included a set of additional recommendations in the NorthStar Report - First Update. 2 PG&E agreed with the additional recommendations and embraced the opportunity to further improve its safety culture and governance. The current status of PG&E's implementation of these additional recommendations is provided in Table 2 below.

PG&E did not close any additional recommendation implementations during Q1 2021. One grouped recommendation under PG&E's Safety OII plan F-2 Supervisors in the Field, which includes V-4, is still being implemented.

- F-2 recommendation item 14 Move completed work review to the jobsite, allowing for immediate feedback before electronic records and paperwork are finalized.
- When F-2 recommendation item 14 is complete, updated closure narrative will be provided for the entire recommendation.

¹ NorthStar Report, issued on May 8, 2017.

NorthStar Report – First Update, issued on March 29, 2019.

TABLE 2 MATRIX OF ADDITIONAL NORTHSTAR RECOMMENDATIONS AND PG&E'S IMPLEMENTATION STATUS

Line No.	PG&E Implementation Plan	NorthStar Recommendation	Status
1	F-1_OII Implementation Plan	Institute version control over, and include dates for the implementation plans, completion narratives, sustainability plans and for the IA sign-off process.	Implemented Under Existing Plan
2	F-1_OII Implementation Plan	Increase the rigor and formality over target completion date changes, status changes and scope changes associated with the implementation of NorthStar's recommendations. Review the implementation status of all recommendations to ensure all elements of the recommendations have been addressed or PG&E's modifications have been documented and justified.	Implemented Under Existing Plan
3	F-1_OII Implementation Plan	Develop processes to ensure the sustainability of the implementation of NorthStar's recommendations.	Implemented Under Existing Plan
4	F-1_OII Implementation Plan	In addition to the status of the implementation of NorthStar's recommendations, continue to report to the Commission on any significant changes that might affect the sustainability of the recommendations.	Implemented Under Existing Plan
5	F-1_OII Implementation Plan	Report to the Commission on a quarterly basis the status of the One PG&E Operational Health & Safety (OH&S) Plan and associated metrics (in process).	Implemented Under Existing Plan
6	F-4 Comprehensive Safety Strategy _includes III-2 III-3 V-3	Increase CSO oversight and governance over public and other aspects of safety to mitigate potential silos and ensure risks are adequately addressed.	Implemented Under Existing Plan
7	F-4 Comprehensive Safety Strategy _includes III-2_III-3_V-3	Communicate results of Internal Audit (IA) safety-related audits and LOB management response to Safety, Health and Enterprise CAP (reporting to the CSO).	IA Review Complete
8	F-4 Comprehensive Safety Strategy _includes III-2 III-3 V-3	Include the Generation Safety Lead in routine meetings between Electric Operations and Gas Operations and Safety & Health regarding the implementation of OH&S plan.	Implemented Under Existing Plan

TABLE 2 MATRIX OF ADDITIONAL NORTHSTAR RECOMMENDATIONS AND PG&E'S IMPLEMENTATION STATUS (CONTINUED)

Line No.	PG&E Implementation Plan	NorthStar Recommendation	Status
9	F-4 Comprehensive Safety Strategy _includes III-2_III-3_V-3	Conduct an annual (or biennial) blue sky strategic safety planning exercise to concentrate on the changing environment, potential risks and threats. The exercise should force a comprehensive analysis of all safety-related opportunities and threats and a formal, proactive action plan. The planning exercise should: • Consider the environmental, financial, political, technological, infrastructure, public, workforce and other risks and safety advancements. • Include executives, management and potentially the BODs. • Be facilitated by an outside expert. • Cover ALL potential contributors to safety.	Implemented Under Existing Plan
10	F-2_Supv in the Field_includes V-4	Increase the number of Supervisors in Electric Operations, Gas Operations and Power Generation field operations to comply with Corporate Procedure HR-2010-P01 thereby limiting the span of direct reports to a maximum of 1:20.	Implemented Under Existing Plan
11	F-2_Supv in the Field_includes V-4	Commit to a target level of dedicated time in supervisors calendars each week for time in the field; guidance will remain flexible for each LOB to take into consideration the different job functions and geographic work considerations.	Implemented Under Existing Plan
12	F-2_Supv in the Field_includes V-4	Transfer administrative tasks such as scheduling of work, training and paperwork review, from the Supervisor to the office-based staff.	Implemented Under Existing Plan
13	F-2_Supv in the Field_includes V-4	Formalize Gas, Electric, and Power Generation management expectations for supervisors spending time in the field and communicate techniques for how to reduce impediments in each LOB thereby increasing time in the field.	Implemented Under Existing Plan
14	F-2_Supv in the Field_includes V-4	Move completed work review to the jobsite, allowing for immediate feedback before electronic records and paperwork are finalized.	Plan in Progress
15	F-2_Supv in the Field_includes V-4	Reduce travel requirements for field personnel and supervisors who are frequently assigned to work or attend meetings outside their normal work locations.	Implemented Under Existing Plan
16	F-3_SLD_includes VIII-1	Continue to provide Crew Lead Safety Leadership training courses for employees that move into Crew Lead positions. Automatically include Crew Lead Safety Leadership training in the training profiles for new crew leads.	Implemented Under Existing Plan

TABLE 2 MATRIX OF ADDITIONAL NORTHSTAR RECOMMENDATIONS AND PG&E'S IMPLEMENTATION STATUS (CONTINUED)

Line No.	PG&E Implementation Plan	NorthStar Recommendation	Status
17	F-3_SLD_includes VIII-1	On an annual basis, revise Safety Leadership Development (SLD) training to address any areas of concern identified in the review of SafetyNet observation data.	IA Review Complete
18	III-1_Board Qualifications	Report any changes in the Board of Director (BOD) skills matrix, and any changes to the composition of the BOD to the CPUC.	Implemented Under Existing Plan
19	III-1_Board Qualifications	Continue to update the BOD on safety and other significant industry issues.	Implemented Under Existing Plan
20	III-1_Board Qualifications	Encourage BOD members to inquire and challenge PG&E executives to ensure a robust governance process. Revise PG&E Corp.'s Governance Guidelines to include expectations for Directors. As an example, see the Sempra Energy Corporate Governance Guidelines. Among other items, the Sempra Energy Guidelines include the following: • Maintain an attitude of constructive skepticism, ask relevant, incisive, probing questions and engage in direct and forthright discussions with the Board and management. • Develop and maintain a broad understanding of the corporation's business and risk profile, its strategic, financial and operating opportunities and plans, and its internal control systems and disclosure controls and procedures, including environmental, and health and safety systems and procedures • Balance prompt action with thorough deliberations, prioritize matter requiring attention, gather sufficient information, engage in open discussion, invite differing views, evaluate the benefits and risks of various courses of action and support the acceptance of prudent business risks to permit informed and timely decision making.	IA Review Complete
21	IX-1_Safety Communication	Implement the recommendations identified in the outside vendor's communications audit.	IA Review Complete
22	IX-1_Safety Communication	Revise the communications plan as necessary to address any safety and health issues that are identified in recent and on-going Premier surveys and associated analyses	Implemented Under Existing Plan

C. Changes to PG&E Execution of Plans

As recommended by NorthStar, PG&E will continue to report to the Commission on any significant changes that might affect the sustainability of the recommendations.

PG&E is sharing an update to Safety OII plan F-2, Supervisor in the Field.
 LOB specific approaches to address the spans and layers goal are:

- Gas Operations Confirmed administrative tasks belong with the supervisors. To address spans and layers ratios by hiring additional full-time supervisors and superintendents, filled vacant supervisor roles and simplified or automated existing tasks. Continue to embrace Lean principles such as huddles for sharing/raising issues and utilizing Leader Standard Work to prioritize supervisor activities to allow more time in the field.
- Power Generation Progress has been made in reducing the number of meetings supervisor are required to attend but administrative tasks have not been removed. After completing negotiations with the union, PG&E is in the process of hiring lead operators. This is a new position which is expected to significantly reduce the number of administrative tasks from both operations and maintenance supervisor task lists.
- Electric Operations EO created the Operations Supervisor role in August 2019 for the purpose of removing administrative task burden from field supervisors. The LOB has also set aside Thursday as a "no book meeting" day to drive one meeting free day per week. The administrative duties moved to the Operations Supervisor role include:
 - Ensuring readiness of work and implementing batching strategies to maximize efficiency.
 - Manage, assign and ensure completion of emergent work i.e. emergency.
- PG&E is sharing an update to Safety OII Plan IV-3, Safety Department Roles and Responsibilities. The EH&S organization structure was set in Q3 2020 and has remained stable. As we work to execute the regionalization initiative, further role refinements will occur. However, PG&E does not foresee any negative impacts to the ongoing execution of our 2025 Workforce Safety Strategy.
- PG&E is sharing an update to Safety OII Plan VI-2 & VI-3 Safety IPP, Risk and Business Case Planning. PG&E has aligned its project management process with the Project Management Institute's guidelines. We no longer utilize the L0 to L5 terminology shared previously. Depending upon project scope, new initiatives will be approved by appropriate leadership. For example, enterprise wide initiatives with material operational impact and cost will be approved at the executive level. Initiative updates are provided at the Safety Technical Council meetings to provide an opportunity for feedback. Planned initiatives are aligned with the 2025 Workforce Safety Strategy.
- PG&E is sharing an update to Safety OII Plan VI-4, PPM for Power Generation expanded to EO and GO. PG&E has experienced significant executive level organization changes during Q1 2021. These changes include a new CEO, new EVP of Operations, new Gas and Electric Operations VPs, and several other additions. As of now, there has been no impact to the execution of this plan.
- PG&E is sharing an update to Safety OII Plan VI-5, Session D link to Session 1 and 2. The Operating Rhythm is being developed to replace

- Session D, Session 1 and Session 2. Enterprise Risk Management has engaged with Business Finance to integrate risk into the new process and is the lead to develop a replacement for RIBA for purposes of prioritizing projects and programs. Risk and Compliance Committees remain the primary LOB risk management forums.
- PG&E is sharing an update to Safety OII Plan VIII-3 SLD 360. PG&E compiled and completed a review of our 2020 full year Safety Culture Observation data in SafetyNet to inform the annual update to our 2021 Safety Leadership Development workshops. PG&E reviewed 91 Safety Leadership Development observations, and the data did not indicate that any specific changes to the Safety Leadership Development workshops were needed. We are looking to develop revisions to this training in 2021 to align with our 2025 Workforce Safety Strategy.
- PG&E is sharing an update to Safety OII Plan VIII-4 Mandatory Refresher Training. For fundamental safety training, the Safety at Heights training requirements have been renamed to Fall Protection to align with the California Code of Regulations and PG&E's internal safety standard, SAFE-1012S – Fall Protection.
- PG&E is sharing an update to Safety OII Plan IX-1 Safety
 Communications. We are continuing to iterate on our communications
 plans to reflect the new 2025 Workforce Safety Strategy. We are also
 deepening our engagement with Keadjian, the audit vendor, to further
 enhance our communications.
- PG&E is sharing an update to Safety OII Plan X-4 Review of Serious Incident Investigations. During Q1 2021, PG&E's Internal Audit team began an audit of the serious injury or fatality intake process to assess how lines of business determine what is a SIF actual, SIF potential or non-SIF. This is a complement to an ongoing CPUC mandated audit performed by the firm Conger & Elsea of the Enterprise Corrective Action Program, which entails a cause evaluation review, a subset of which are SIF investigations.
- PG&E is sharing an update to Safety OII Plan X-7 Safety Communication Protocol. We have made improvements to our SIF communications, including:
 - Every SIF final communication is now distributed to all high and medium-risk contractors.
 - Safety communications are now branded, including "SIF Alerts."
 - We are exploring the opportunity to utilize text messaging for SIF communications.

V. Board of Directors Reporting

In D.19-06-008, the Commission directed PG&E to provide the following information in the quarterly reports submitted to SED pursuant to D.18-11-050:

 Non-confidential versions of the minutes of all BOD and safety committee meetings. 2) All training, education or other support on safety that PG&E and PG&E Corporation are providing to Board members so that they can adequately perform their duties on safety issues.³

A. BOD and SNO Committee Meeting Minutes

In the first quarter of 2021, the Board had formal meetings on January 29 and February 10. The SNO Committees held meetings on February 10 and a joint meeting with the Audit Committee on the same day, February 10.

Attachment 1 to this Report includes non-confidential versions of approved minutes for the following BOD and SNO Committee meetings that were held on or after June 13, 2019, 4 and for which approved minutes have not been provided in connection with a prior quarterly report.

 Meetings of the BODs of PG&E and PG&E Corporation that were held concurrently on the following dates:

 Meetings of the SNO Committees of the BODs of PG&E and PG&E Corporation that were held concurrently on the following dates:

November 25, 2020 - concurrent with the Compensation
Committee
December 9, 2020 - concurrent with the Audit Committees
December 10, 2020

Meeting minutes for the BODs and the SNO Committees must be formally reviewed and approved by the relevant governance body prior to finalization. The timing for this process varies, and in many cases the minutes will be finalized in a different quarter than the quarter in which the meeting was held.

B. BOD Safety-Related Training

PG&E is submitting information regarding "all training, education or other support on safety that PG&E and PG&E Corp." provided "to board members to ensure that they can adequately perform their duties on safety issues."

- During the first quarter of 2021, several board members conducted a field visit to Diablo Canyon Power Plant. Given the ongoing pandemic, the prior practice of consistent site visits for directors continues to be impacted.
- In February 2021, the Boards received an update on safety performance and the 2025 Workforce Safety Improvement plan, as well as an overview of events with impact on operations.
- In February 2021, the SNO Committees received a safety tailboard on the Near Hits program and a detailed safety performance update, including discussion of SIF actual events. The Committees also received an update

³ D.19-06-008, *mimeo*, p. 4

⁴ Effective date of D.19-06-008.

on the 2025 Workforce Safety Improvement plan and nuclear performance. The Committees reviewed results from the 2020 PSPS events and stakeholder feedback, as well as the PSPS program goals for 2021. The Committees received an update on an enterprise cross-cutting risk factor related to severe workforce disruption. Lastly, the Committees received an update on the 2020 fourth quarter Wildfire Mitigation Plan and Probation Terms Report.

 In February 2021, the SNO Committees and the Audit Committees jointly reviewed the Internal Audit report for the fourth quarter of 2020. The SNO Committees primary focus is reports related to operational audits.

VI. Safety Strategy and Performance Update

A. Safety Strategy Update

Our new Chief Safety Officer has now been in his role for a year. During his first year, he developed our 2025 Workforce Safety Strategy. The safety updates included in this report align with the major components of the 2025 Workforce Safety Strategy. The strategy has been reviewed by senior leadership and the Board of Directors and has driven our execution since mid-2020. PG&E continues to execute to all major elements included in the previous One PG&E Health and Safety Plan and believe this new strategy and its broader scope will help drive improvements in safety performance.

TABLE 3 CRITICAL RISK UPDATE

Strategy		
Component	Workstream	Q1 2021 Progress
	Hazard identification and risk assessment workshops	Conducted workshops with critical health and safety staff to identify potential enterprise level risks. During Q2, risks will undergo a formal risk assessment that is consistent with the Enterprise Operational Risk Management practices.
		Vegetation Management conducted an assessment of key hazards with the assistance of a third party. Actions were developed and are in the process of being implemented.
Critical Risk		Strategies were developed for the assessment of PG&E owned and maintained roads to identify and prioritize risks to drivers using these roadways.
	Technical standards	Five draft technical standards were completed by Enterprise Health and Safety and distributed to all employees for comment. The five standards include: Hazardous Energy Control, Confined Space, Electrical Safety, Fall Protection, Lifting Operations.
		The development of Vegetation Management Safe Work Practices is being managed by Electrical Operations. Sixteen Safe Work Practices were identified for development and are currently being reviewed by key contractors.

TABLE 4 TRANSPORTATION SAFETY UPDATE

Strategy Component	Workstream	Q1 2021 Progress
	Motor Vehicle Safety	 360 Walk Around App – Pilot launched in mid-Feb with 50+ participants. Pilot will continue to expand into May to inform potential enterprise wide rollout. NSC Distracted Driving course – Launched new Distracted Driving Web-based Training course in January. Course is profiled for all employees who drive company or personal vehicles to conduct business with a frequency of every other year.
Transportation Safety	Safety Technology	Vehicle Safety Technology (VST) Installation – ~60+% of the eligible PG&E fleet vehicles have been installed with the new device providing real-time, audible feedback to the driver when risky behaviors occur, such as speeding, hard acceleration and hard braking.
	Contractor Transportation Risk	Vendor under contract to support the review of the over 2,000 ISN vendors systemwide. Developing a communication plan, dashboard and system to support the review of the 2000 vendors for those that have a CA Motor Carrier Permit number and if required a US Department of Transportation number.

TABLE 5 CONTRACTOR SAFETY UPDATE

Strategy	Workstroom	O4 2024 Progress
Component	Workstream	Q1 2021 Progress
	Contractor training	New training uploaded to ISNetworld (ISN) in Q1 for contractor completion beginning Q2:
		ENVR-9032WBT: Valley Elderberry Longhorn Beetle (VELB) Environmental Awareness
		ENVR-9033WBT: VELB Qualified Individual
		ENVR-0401WBT: Avian Protection Plan Comprehensive
		GAS-2020WBT: Field Design Change (was in ISN previously, this was a version update)
Contractor Safety Management		ENVR-0200WBT: Vault Discharge (was in ISN previously, this was a version update)
management		ENVR-0220WBT: Habitat Conservation Plans (was in ISN previously, this was a version update)
		ENVR-0220WBT: Habitat Conservation Plans (Spanish version)
	Contractor management	Implemented SiteTracker, within ISN, to provide monthly updates on subcontractors' population
		Implemented SubTracker, within ISN, to increase our visibility into prime and subcontractor relationships and better manage subcontractor compliance with PG&E requirements

TABLE 5 CONTRACTOR SAFETY UPDATE (CONTINUED)

	Enhanced grading criteria in ISN and required Written Safety Programs to be completed to receive full credit on the scorecard.
	Implemented requirement to report incidences within ISN, including dig-in's
	Removed subjective safety, health and environmental grading component from the prequalification process
Contractor requirements	Implemented required written respiratory protection for contractors working outdoors when the AQI is above 500
	Implemented a Review and Verification System (RAVS Plus), through ISN, to assess implementation of a contractors Health &Safety programs. This process includes interviews and testing.
On-boarding	RAV's=All PG&E medium and high-risk primes and subcontractors were active
	As of March 23, 2021, 313 PG&E contractors have completed the process.

TABLE 6
SERIOUS INJURY AND FATALITY MANAGEMENT UPDATE

Strategy Component	Workstream	Q1 2021 Progress
	Analyze SIF investigations and share key learnings	100% of SIF incidents occurring in Q1 closed in under 30 days. Key learnings were shared with the affected lines of business, the enterprise, and contractors.
Serious Injury and Fatality Management	Improve timeliness and clarity of SIF-related communications	Starting in Q1, the ECAP director and SIF senior manager have been meeting weekly with SIF sponsors to provide targeted coaching and expectation-setting. This has helped drive SIF investigation completion, clarity in SIF-related communications and investigation quality.

TABLE 7
ENTERPRISE CORRECTIVE ACTION PROGRAM UPDATE

Strategy Component	Workstream	Q1 2021 Progress
Enterprise Corrective Action Program	Near Hit Program	 Refined and promoted Near Hits dashboard that shows detailed and aggregated data by line of business, Near Hit type, geographic location, severity, and other attributes Promoted Near Hits enterprise-wide through computer lock screen graphic and featured Near Hit stories in Daily Digest Achieved 0.61% anonymous rate for Near Hits (goal is <2% anonymous submissions)

TABLE 8 ASSURANCE UPDATE

Strategy Component	Workstream	Q1 2021 Progress
	Auditing	Corporate Safety Audit Program Standard and enabling tools were developed. Pilot testing was completed in two auditable units.
		Review and approval of Safety Audit Plan, including nomination of Audit Team Leads and Team Members, are on-going.
Assurance		Implementation of Corporate Safety Audits will commence in April/May 2021, after receiving endorsement of the audit plan.
	Independent Safety Oversight Committee (ISOC)	Completed Shared Services ISOC Assessment in March. Preparations underway for the EO ISOC Assessment in May.
		On-track on majority of ISOC key insights and commitments.

TABLE 9 OCCUPATIONAL HEALTH UPDATE

Strategy Component	Workstream	Q1 2021 Progress
Occupational Health	Health and Wellness	2021 Health Screening participation of 57% as of Mar 31, 2021. Approx. 2,000 screenings completed using the Self-collection Kit.
		63 completed health coaching appointments Jan 1 – Feb 28, 2021.
		Completed Walk the Wonders team step challenge with 351 participants and 33,296 total miles tracked.
		H&W portal: 4,983 (20.1%) employees enrolled as of Mar 31, 2021.
		Promoted healthy habit challenges: Move on the Hour (Jan), Fruit is Sweet (Feb), and Wordsmith (Mar).
		Webinars and podcasts: Estate Planning, Expert Panel for Holistic Approach to Sleep, Mindfulness for Sleep webinar, Nutrition Masterclass series, Fear and Stigma of Reaching Out for Help, domestic violence/abuse, suicide prevention, drugs/alcohol and daily mindfulness sessions.
		Conducted training pilots: Mental Health Awareness for Leaders and Suicide Prevention for Leaders.
		Support of General Office move through Employee Assistance Program (EAP)-led sessions on managing transition.
		Asian American and Pacific Islander (AAPI) violence and coping: shared tip sheet, supported healing circle.

TABLE 9 OCCUPATIONAL HEALTH UPDATE (CONTINUED)

Strategy Component	Workstream	Q1 2021 Progress
	Ergonomics	Office Ergonomics: Conducted 1,779 new ergonomic evaluations and 4,039 follow-ups in Q1; 14,000+ virtual evaluations since March 2020.
		Implemented enhanced follow-up procedure for discomfort cases with individualized action plans to accelerate resolution.
		Developed ergonomic strategy for office re-integration post-COVID.
Occupational Health		Industrial Athlete (IA) program: IA Specialists returned to field visits for observations and support. Partnered with Gas Grass Roots teams and leaders to employ best practices during field visits.
		81 Focus in the Field biomechanical observations completed in Q1. 1:1 IA Specialist program rolled out to two additional yards; 17 yards in total.
		Expanded Post Offer Physical Assessment requirements for internal non-physical employees transferring into physical jobs and updated test for Traffic Control job.
		Industrial Ergonomics (IE): Line of Business operations sponsors and leads identified to accelerate industrial ergonomic projects. Established bi-weekly alignment meetings.
		Industrial ergonomic training developed, Academy Course Code received, and training rolled out to team members.
		8 new high-risk tasks identified and analyzed. Piloted solutions on 2.
		Vehicle ergonomics: 183 Ergonomic Assessments performed in Q1. Partnered with Fleet Engineering and Electric and Gas Ops on Specification Review Committee for 6 vehicles.

TABLE 9 OCCUPATIONAL HEALTH UPDATE (CONTINUED)

Strategy Component	Workstream	Q1 2021 Progress
	Injury Management	Live Health Online telemedicine: 174 registrations and 268 visits in Q1.
Occupational Health		 Condition management (targeting high risk employees): total enrollment 850 (562 employees and 288 dependents with high health risks) in KnovaSolutions as of April 1.
		 Fit4U Interim virtual program: Participation increased incrementally but remains low; the take rate for April 1st was 9.5%. Employee feedback is positive. Virtual services will continue, pending ability to return to in-person activities and exercise training.
		 Return-to-Work Task program: saved 722 lost workdays and placed 16 employees into temporary task assignments.
		 Telephonic Nurse Case Management (TCM) program: provided early nurse intervention on 287 new Workers' Compensation claims; resulting in 129 lost workdays saved.

TABLE 10 CULTURE UPDATE

Strategy Component	Workstream	Q1 2021 Progress
	Safety Culture assessment	Enterprise and LOB Action Planning completed
		Action plans will be monitored for implementation
	Safety in Talent Management	Implemented safety questions in Interview Guides
		Job postings include safety
	Safety Leadership Development (SLD)	Hired Safety Culture manager, who conducted field visits with front-line employees and Academy personnel.
		Preparing work scope for revision to the SLD workshops
Culture	Safety Connections (Directors and Officers in the field having informal conversations with employees)	Completed roll-out of Safety Connections to Officers and Directors. Conducted Learning sessions, which shared tools and resources.
		Going forward: Will monitor completions, identify process, and resource improvements, and practice continuous improvement.
	Communications	Conducted interviews with program and communication leads to document needs and develop a communications plan for 2021.
		Assembling a Communications Network with front-line employee representation to provide insight into communications needs and effectiveness.

TABLE 11 FIELD SAFETY OPERATIONS UPDATE

Strategy Component	Workstream	Q1 2021 Progress
	Field observations	3,281 Field Safety Observations were completed by EH&S specialists from 1/1/2021 through 3/31/2021.
Field Safety Operations	Tailboard redesign	Tailboard effectiveness pilot program was expanded to include all LOBs. Tailboard questions were revised and added to the Live Safe app for enhanced availability. Tailboard quality assessment checklist added to Safety Net for supervisor use.
	Supervisor training	The supervisor safety leadership training program was completed during Q1 2021, after providing training to over 730 supervisory employees in all field LOBs.

TABLE 12
HEALTH AND SAFETY MANAGEMENT SYSTEM UPDATE

Strategy Component	Workstream	Q1 2021 Progress
	Implementation	HSMS framework and standards (5 Elements and Policy) on track to publish in May. Planning and tools for LOB self-assessments and gap action planning in progress. OSHA Compliance Gap Assessment completed and action planning to address gaps in progress.
Health & Safety Management System	Management of Change (MOC) software	MOC Technology Request for Proposal (RFP) was issued in early March, with vendor selection in late April. Project team is addressing RFP questions from vendors.
	Technology	EHS relevant technology Request for Proposal (RFP) was accelerated and issued in early March in parallel with MOC, with vendor selection in late April. Project team is addressing RFP questions from vendors.

B. Safety Metrics

PG&E established Days Away, Restricted or Transferred (DART)⁵ targets for 2021 based on the goal of reaching 1st quartile by 2025. The 2021 goal would place PG&E in 3rd quartile.

Table 13 below summarizes key metrics performance and established targets for 2018 - 2021. Figure 1 below provides current performance with respect to employee safety metrics as of March 31, 2021.

Additional Analysis: DART cases have continued their downward trajectory since March of 2020 primarily driven by a drop in restricted duty cases. Improvements have been made in both field and office worker groups. The 12-month rolling average has dropped into third quartile and the performance is currently on track to meet the end of year target.

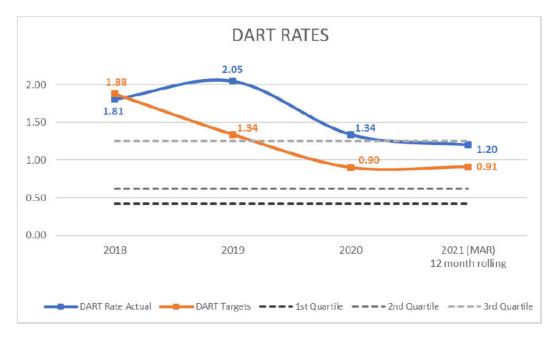
TABLE 13 2018-2021 PERFORMANCE AND ESTABLISHED TARGETS

Metric	20	2018		2019		2020*		2021*		
Wetric	Actual	Target	Actual	Target	Actual	Target	YTD Actual	YTD Target	EOY Target	
Employee SIF Actual Count	1		0		4		0			
Employee SIF Potential Count	21		33		25		3			
DART Rate	1.81	1.88	2.05	1.34	1.34	0.90	1.20	1.23	0.91	

^{*}Number includes count of all injured parties

Data through 3/31/2021

FIGURE 1 CURRENT PERFORMANCE AS OF MARCH 31, 2021



DART: Injury that results in days away, restricted or transferred duty, rate based on 200,000 hours worked.

²⁰²⁰ forward, rates and targets are based on 12 month rolling rates

SIF Graphs

Additional Analysis: Started tracking Contractor SIF potentials (SIFp) in June 2020 which has contributed 4 SIFp events to the 2021 year-to-date count.

SIF Actual: Employee vs Contractor (2018-2021)

Note: Graph below is based on number of injuries



SIF Potential: Employee vs Contractor (2018-2021)

Note: Graph below is based on number of incidents

Contractor SIFp events were not tracked in 2018-2019

Contractor SIFp tracking started in June 2020



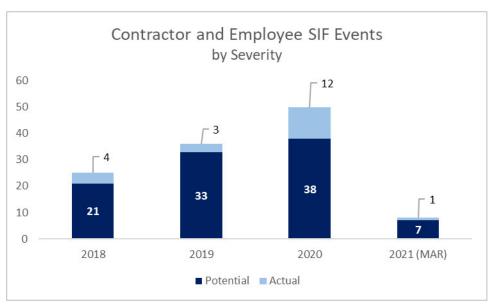


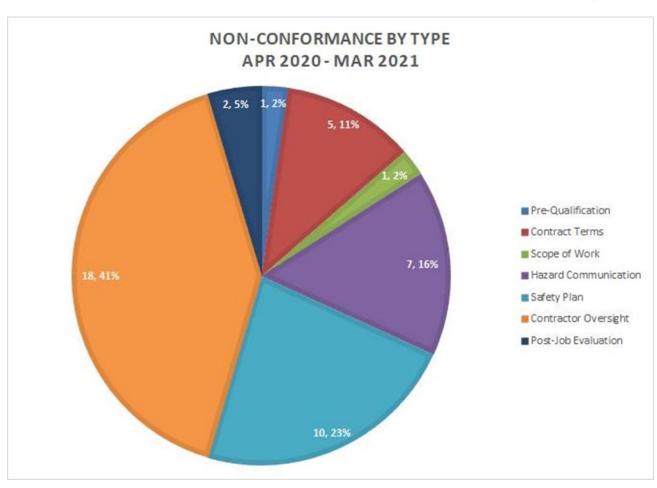
TABLE 14 2018-2021 PERFORMANCE

Metric***	2018	2019	2020*		2021*	
	Actual	Actual	Actual	YTD Actual	YTD Target	EOY Target
Contractor SIF Actual Count	3	3	8	1		
Contractor SIF Potential Count**	N/A	N/A	14	4		
% of Contractor Assessments with Non-Conformance Findings	10.3%	12.5%	11.9%	6.20%		

^{*}Number includes count of all injured parties

Data through 3/31/2021

FIGURE 2
CONTRACTOR ASSESSMENT NON-CONFORMANCE TYPE BREAKDOWN AS OF MARCH 31, 2021



NOTE: Non-conformance by type graph includes all non-conformances found during contractor assessments. An assessment can include more than one non-conformance type.

Additional Analysis: Specific PMVI⁶ Rate Targets were set for each line of business (LOB). If the LOB was already performing in the best decile,

^{**}Contractor SIF Potentials were only tracked starting June 2020

^{***}Targets are not set for Contractor metrics

⁶ Data includes incidents on public roads only.

their goal is no deterioration in performance. For all other LOBs, the goal is set to achieve a 5% performance improvement. The top two incident types are striking stationary objects and striking third parties. These two categories account for almost 54% of our total incidents.

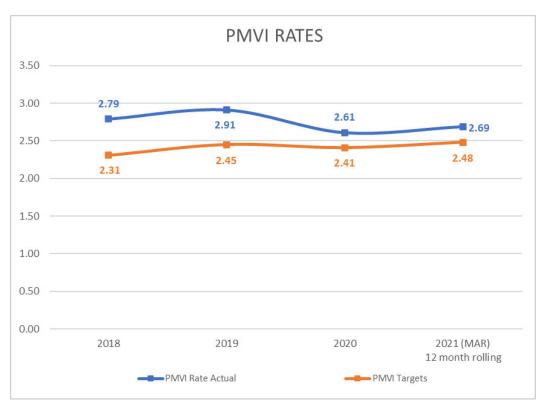
TABLE 15
2018–2021 PERFORMANCE AND ESTABLISHED TARGETS

Metric	2018		2019		2020		2021*		
	Actual	Target	Actual	Target	Actual	Target	YTD Actual	YTD Target	EOY Target
PMVI Rate	2.79	2.31	2.91	2.45	2.61	2.41	2.69	2.58	2.48

2020 forward, rates and targets are based on 12 month rolling rates

Data through 3/31/2021

FIGURE 3 CURRENT PERFORMANCE AS OF MARCH 31, 2021



C. Conclusion

PG&E is committed to improving its safety culture and performance and regaining the public's trust. The areas of opportunity identified by NorthStar in its Final Report and in its First Update are at the core of a strong and proactive safety culture. PG&E looks forward to continuing this important work and providing the Commission with quarterly updates on its progress.

PG&E Gas and Electric Advice Submittal List General Order 96-B, Section IV

AT&T

Albion Power Company

Alta Power Group, LLC Anderson & Poole

Atlas ReFuel BART

Barkovich & Yap, Inc.
California Cotton Ginners & Growers Assn
California Energy Commission

California Hub for Energy Efficiency Financing

California Alternative Energy and Advanced Transportation Financing Authority California Public Utilities Commission Calpine

Cameron-Daniel, P.C.
Casner, Steve
Cenergy Power
Center for Biological Diversity

Chevron Pipeline and Power City of Palo Alto

City of San Jose
Clean Power Research
Coast Economic Consulting
Commercial Energy
Crossborder Energy
Crown Road Energy, LLC
Davis Wright Tremaine LLP
Day Carter Murphy

Dept of General Services Don Pickett & Associates, Inc. Douglass & Liddell East Bay Community Energy Ellison Schneider & Harris LLP Energy Management Service Engineers and Scientists of California

GenOn Energy, Inc.
Goodin, MacBride, Squeri, Schlotz &
Ritchie
Green Power Institute
Hanna & Morton
ICF

International Power Technology
Intestate Gas Services, Inc.
Kelly Group
Ken Bohn Consulting
Keyes & Fox LLP
Leviton Manufacturing Co., Inc.

IGS Energy

Los Angeles County Integrated Waste Management Task Force MRW & Associates Manatt Phelps Phillips Marin Energy Authority McKenzie & Associates

Modesto Irrigation District NLine Energy, Inc. NRG Solar

Office of Ratepayer Advocates OnGrid Solar Pacific Gas and Electric Company Peninsula Clean Energy Pioneer Community Energy

Redwood Coast Energy Authority Regulatory & Cogeneration Service, Inc. SCD Energy Solutions San Diego Gas & Electric Company

SPURR

San Francisco Water Power and Sewer Sempra Utilities

Sierra Telephone Company, Inc.
Southern California Edison Company
Southern California Gas Company
Spark Energy
Sun Light & Power
Sunshine Design
Tecogen, Inc.
TerraVerde Renewable Partners
Tiger Natural Gas, Inc.

TransCanada
Utility Cost Management
Utility Power Solutions
Water and Energy Consulting Wellhead
Electric Company
Western Manufactured Housing
Communities Association (WMA)
Yep Energy