

KIRKLAND & ELLIS LLP

AND AFFILIATED PARTNERSHIPS

December 16, 2021

The Honorable William H. Alsup
United States District Court
Northern District of California
450 Golden Gate Avenue
Courtroom 12 - 19th Floor
San Francisco, CA 94102

December 16, 2021 Monitor Submission re PG&E's Response to Request for a Final Report in Case No. 3:14-cr-00175-WHA

The Monitor team respectfully submits this response to the Court's *Request for Critiques*, dated November 23, 2021, Dkt. 1524. We hope the response will provide further context and clarification regarding some of the matters discussed in PG&E's November 17, 2021 *Response to Request for a Final Report*, Dkt. 1519 ("PG&E's Report").

Our *PG&E Independent Monitor Report of November 19, 2021*, Dkt. 1524-1, provides further substantial context regarding the matters discussed in PG&E's Report. We presume familiarity with our November 19, 2021 Report, and therefore have tried not to repeat matters already raised in that Report—many of which address the same topics reported by PG&E—in the observations below. The Monitor team presents these additional observations in the order in which the underlying subjects and related passages appear in PG&E's Report.¹

As an initial overarching matter, PG&E's Report highlighted the progress and improvements the Company has made throughout the term of the Monitorship. The Monitor team's Report also discussed progress and improvements, but focused a larger portion of its Report on areas where PG&E has experienced shortcomings throughout the term of the Monitorship and

¹ Nothing in this Response purports to assert a factual finding or evidence concerning any pending or future litigation. These observations are intended to be candid comments based on our work as a Monitor team, but we did not conduct that work in a manner structured by state or federal adjudicatory rules or process.

where further improvements are necessary. We do not, however, view PG&E's Report as inconsistent with ours. The progress that PG&E highlighted is real and we have tried to acknowledge it in a balanced and forthright way. As PG&E also acknowledged in its Report, however, there is much more work to be done, and we have also tried to emphasize those areas because PG&E's shortcomings can have life and death consequences. Put differently, and perhaps more optimistically, improvements by PG&E, if realized, can save lives, and also prevent property damage and human disruption, in the future for the people of California.

I. PG&E'S PRELIMINARY STATEMENT

Passage from PG&E Report (p. 4): PG&E states, "Recognizing the need for the best thinking on operations, safety and risk, the Company has hired leaders from stable, safe and operationally excellent utilities around the country to help PG&E address the challenges of operating in a high-risk environment, including PG&E's new Chief Executive Officer (the former CEO of CMS Energy); Chief Operating Officer (the former CEO of MidAmerican Energy Company); the new head of electric operations (the former VP of Grid Development at American Electric Power); the new head of gas operations (the former VP of Gas Operations at Public Service Electric & Gas Company); the new head of electrical engineering (the former executive in charge of U.S. utility operations for AES corporation); and the new head of gas engineering (the former executive in charge of gas systems engineering at National Grid)."

Response/Clarification: The Monitor team agrees that PG&E has recently onboarded several senior leaders with significant industry experience and promising credentials; however, PG&E's report does not sufficiently acknowledge the Company's longstanding problems with senior leadership turnover across the Company. Issues with leadership turnover were raised in our Report and discussed in greater detail therein—but the importance of stability in leadership for

PG&E cannot be overstated. The Company has had five CEOs, six heads of Gas Operations, four heads of Electric Operations, and five heads of the Safety organization since the Monitorship began in the Spring of 2017. PG&E has also had no less than 45 different members of its Board of Directors since 2017. Stability of leadership will foster continuity of efforts, programs, and related messaging that are critical to safety, including wildfire mitigation efforts, gas pipeline integrity programs, and Company-wide recordkeeping improvements.

II. ELECTRIC OPERATIONS

A. Updated Risk Model to Guide Initiatives

Passage from PG&E Report (p. 17): PG&E reported that “PG&E contracted with Energy and Environmental Economics to perform an independent, third-party review of PG&E’s 2021 Wildfire Distribution Risk Model, which found that the model is appropriately designed for its stated goals, that it represents an improvement to PG&E’s prior model, and that it is a meaningful step above the industry standard approach.”

Response/Clarification: The above findings referenced in PG&E’s Report come from the May 2021 Energy and Environmental Economics (“E3”) report entitled “E3 Review of PG&E’s 2021 Wildfire Distribution Risk Model” (“E3 Review”). The Monitor team is familiar with the E3 Review as part of its work assessing PG&E’s wildfire risk mitigation efforts.

The Monitor team does not take issue with PG&E’s assertions regarding the E3 Review findings. The E3 Review, however, contains additional information and detail that may be helpful to ongoing evaluation and continuous improvement of PG&E’s risk models. For example, the E3 Review offers several areas where PG&E could improve risk model development and application as part of its review of PG&E’s 2021 Distribution Risk Model (“Dx Risk Model”). These areas for potential improvement include: coordination between subject matter experts and risk model

developers; documentation regarding how PG&E's various wildfire-related risk models and data inputs interact; the impact of potential simplification of parameters on predictive power; and long-term model development. The Monitor team and our experts agree that these areas warrant focused improvement efforts going forward, notwithstanding certain initial progress to date.

With respect to potential for improvement of the Dx Risk Model and PG&E's risk models more generally, the E3 Review identified a lack of close integration between risk model developers and the asset and vegetation management subject matter experts who are using the risk models to make more informed decisions, including leveraging information known by the subject matter experts. The E3 Review stated, "[a] well-defined process for this interaction between model results and [subject matter experts] should create a feedback that improves both model predictive power and [subject matter expert] knowledge and assessment." We agree that such informed feedback is likely to produce valuable improvements going forward and should be emphasized.

The E3 Review also highlights the need for PG&E to devote more effort to its long-term view of risk model development. It states: "Apart from commitments to work to both broaden the applications and accuracy, PG&E provides no longer-term roadmap for development of the Distribution Risk Model. It builds models suitable for addressing what it believes are the most important questions in front of it today, with no particular longer-term destination dialogue to identify the best path forward for model evolution."

The Monitor team provides this additional context because we believe that continued attention to PG&E risk modeling by experts inside and out of the Company will be critical. The Company uses those models to inform, prioritize, and execute on day-to-day safety work. Such prioritization is of extreme importance: no one believes that PG&E will have limitless resources for reform, either from its rate base or governmental or other sources, so it is imperative that

resources are spent in the most effective way possible. The Company has invested in its risk modeling capabilities, and the Monitor team encourages continued attention and investment so PG&E can get to the point where its risk models are continuously integrating real-time data that reflect the dynamic and changing circumstances of its territory and equipment so that PG&E can leverage that data in decision-making.

B. Vegetation Management

Passage from PG&E Report (p. 21): PG&E states regarding its EVM scope that, “During a Phase 1 inspection, pre-inspectors identify for removal or trimming any vegetation that encroaches on a 12-foot radial clearance of PG&E’s power lines . . .”

Response/Clarification: This statement of PG&E’s EVM scope of work could benefit from further clarification to ensure that those evaluating the EVM program have a clear understanding of how pre-inspectors assess radial clearance pursuant to PG&E policies and training. PG&E’s EVM scope policy document does not require removing or trimming “any vegetation that encroaches on a 12-foot radial clearance of PG&E’s power lines.” Instead, PG&E’s EVM procedure (document number TD-7106P-01) requires removal or trimming of “vegetation with the potential to encroach within a 4-ft. radius of the primary conductor before the next routine/compliance tree work cycle.” (TD 7106P-01, Sec. 3.1) Therefore, for example, if a tree is eight feet away from a primary conductor, and if the pre-inspector does not believe the tree will encroach within four feet of the primary conductor within the next inspection cycle, the tree does not need to be identified for radial clearance trimming under the EVM scope. Where pre-inspectors do identify trees with the potential to encroach within the four-foot radial zone, the EVM policy requires pre-inspectors to “prescribe a minimum of 12-ft. radial clearance,” or, in other words, to direct the tree crew to trim back that tree at least 12 feet from the primary

conductor. So while the EVM program tries to achieve 12-foot radial clearances, it only does so for trees that may grow within the four-foot radial zone before the next inspection cycle, which oftentimes takes place the following year. Pre-inspectors who have spoken with the Monitor team have confirmed that, in practice and in accordance with the policy and training (which the Monitor team has also observed), only trees and vegetation with the potential to encroach within four feet of a primary conductor within the next inspection cycle receive radial clearance trimming under the EVM scope.

Passage from PG&E Report (p. 24): PG&E states, “PG&E has also started to move to a 100% work verification model in its routine VM program in HFTDs, similar to the model used for PG&E’s EVM program.”

Response/Clarification: While PG&E is correct that it has “started to move to” 100% work verification on all HFTD areas subject to routine VM, the Monitor team notes for context that the Company will not accomplish that goal in 2021. Of the approximately 23,000 HFTD miles subject to routine VM (and not EVM) in 2021, PG&E reported to the Monitor team that it expects to perform approximately 8,300 miles of routine VM work verification by the end of 2021, which is approximately 36% of the HFTD service territory subject to routine VM this year. Additionally, while 100% work verification is an improvement for PG&E, the Monitor team believes that PG&E needs to continue training and re-training its pre-inspector and vegetation workforce to ensure that vegetation risks are correctly identified and abated *the first time*, as opposed to being forced into a position where skilled inspectors who could otherwise be inspecting new areas and prescribing new work are forced to check, and oftentimes re-check, work that could have been done correctly in the first instance. While the Monitor team agrees that presently work verification is an important step because it catches a significant number of issues (similar to the Monitor team’s own

inspections), PG&E should endeavor to be in a position where work verification becomes increasingly unnecessary because of improved performance in the first instance.

C. Asset Inspections

Passage from PG&E Report (pp. 26-27): PG&E states, regarding changes to its asset inspections program, that: “In short, PG&E’s program for asset inspections went from one that was not originally designed with wildfire risk in mind to one that is now squarely centered around wildfire risk mitigation and is far more thorough, standardized, digitized and verifiable.”

Passage from PG&E Report (p. 28): PG&E further states with respect to the Wildfire Safety Inspections Program (“WSIP”), that: “The goal of the WSIP program was to identify and quickly remediate the most serious conditions in areas that were the most likely to lead to catastrophic wildfires in the event of an ignition, with the program representing a significant upgrade in the safety and reliability of PG&E’s transmission and distribution systems.”

Response/Clarification: *First*, the Monitor team agrees that PG&E has improved its asset inspection program to increase emphasis on wildfire risk mitigation (although our focus was not on the historic programs in place prior to the Camp Fire). We feel that further work can be done by PG&E to focus its inspections program on fire risk, including by continuing to work to address all high-threat area inspections with enough time to resolve all priority repairs identified before fire season, and to further prioritize assets for the most impactful inspection cycles. For example, once assets are selected to be inspected for PG&E’s annual work plan in high-threat areas (which selection is based on risk), PG&E does not currently prioritize further *within* the annual plan which assets are to be inspected sooner than others. For example, while PG&E has worked to rank its assets on risk from “1” to “n” (with “n” being the total number of assets in PG&E’s service area), this and other risk rankings do not translate into the order of execution of inspections inside the

annual high-threat area plan. Thus, the asset or geography that PG&E identifies as having the highest wildfire risk is not required to be the first—or even one of the first—assets inspected. The Monitor team and our experts acknowledge that practical factors related to execution can influence the order in which asset inspections are ultimately completed in the field (for example, temporary delays may be required in inspecting certain assets that are inaccessible at certain times of the year because of snowfall). However, PG&E could take additional steps to align its planning and execution of asset inspections with known risks, and thereby to be more methodical and impactful on its asset inspection prioritization throughout the year.

Second, although PG&E states that its goal is to quickly remediate the most serious conditions, PG&E has an increasing backlog of outstanding Priority B and E remediation tags. The September 30, 2021 Company dashboard showed that PG&E had 167,442 Priority B and E asset remediation tags in HFTD areas. As of October 25, 2021, approximately 2,000 of those outstanding tags were overdue Priority B distribution tags. That is a significant increase from the 326 open, overdue Priority B distribution tags that PG&E had on May 3, 2021. The buildup of uncompleted Priority B tags, in particular, is notable because these are repairs that are supposed to be completed within 90 days. Those are known safety-related priority issues that can pose wildfire risks. And even Priority E tags are supposed to be remediated within six months in Tier 3 HFTDs, which is not always happening. PG&E has taken certain proactive steps to address the remediation tag backlog, such as creating a “strike team” for 2021 to address the issue, although this team has been disbanded for 2022. The Company expects that it will take years to eliminate the backlog and lacks a clear plan for achieving its objective. PG&E cannot allow its Priority B and E remediation tag backlog in HFTD areas to persist for years, especially without a comprehensive plan for effectively reducing and eventually eliminating the backlog.

Passage from PG&E Report (p. 30): PG&E states with respect to its asset inspections in 2020 and beyond, that: “Starting in 2020, PG&E incorporated the enhanced inspection processes and tools developed for the WSIP program into its routine compliance inspection and maintenance program, adopting risk-informed maintenance cycles so that facilities in Tier 3 HFTDs would be subjected to these enhanced inspections annually, and assets in Tier 2 HFTDs would be subjected to enhanced inspections on a three-year cycle.”

Response/Clarification: The Monitor team understands that PG&E is considering reducing the frequency of its Tier 3 asset inspections in the future. One possibility PG&E has considered is aggregating certain high fire-threat area assets (including Tier 3 assets) into a group subject to a three-year inspection cycle. The Monitor team would not support this approach in the short-term because it may have public safety ramifications, given PG&E’s continued identification of significant asset remediation work in Tier 3 areas each year since PG&E began enhanced inspections in 2019. Put another way, since 2019, during which time PG&E has aimed to inspect 100% of electrical assets in its Tier 3 territory annually, the Company has identified material priority safety issues with assets in Tier 3 territory each and every year. In sum, the Monitor team does not believe that PG&E is in a position yet where it can reduce its annual efforts in high-threat areas (by placing those assets on a three-year inspection cycle), especially in the highest risk, Tier 3 portion of those areas.

D. Records

Passage from PG&E Report (p. 33): PG&E states, with respect to the quality of its recordkeeping, that: “One aspect of PG&E’s wildfire mitigation programs that PG&E is committed to improving is the quality of its records. PG&E recognizes that incomplete or inaccurate records can have serious safety implications and that, in the past, its records have fallen short.”

Response/Clarification: While the Monitor team acknowledges that PG&E has made some improvements in the quality of its records, PG&E's efforts throughout the term of the Monitorship have been insufficient to achieve traceable, verifiable, accurate, and complete records in PG&E's Electric Operations or anything close to it. To add further clarification to the passage above, PG&E's issues with inaccurate and incomplete Electric Operations records are not merely remnants of the past—they are issues that affect and negatively impact present day operations. As one example, among others highlighted in our Report, PG&E continues to send inspectors to inspect assets based on equipment IDs in PG&E's records indicating that an asset exists at a specific location, only for inspectors to determine there is no such asset at that location. Additionally, those inspections may have been counted towards PG&E's work plan. When pressed to identify the scope of this issue with equipment IDs not matching the existence of assets in the field, even last month PG&E was unable to provide a precise number. As mentioned in our Report, we understand there are ongoing efforts to correct these asset location discrepancies on the Electric Operations front. These efforts identified 41,000 structures that were added to PG&E's work plan in July 2021, largely because of records issues PG&E identified. Because recordkeeping issues remain in the present day, PG&E's continued attention is needed to identify and remediate such issues.

E. Undergrounding and Other System Hardening

Passage from PG&E Report (p. 35-37): PG&E provides an overview of its commitment to underground 10,000 miles of electric distribution lines in HFTDs. PG&E notes the potential benefits of undergrounding, including the reduction of wildfire risk, vegetation management, and PSPS events.

Response/Clarification: While the Monitor team recognizes the potential benefits of undergrounding, PG&E did not specify a timeframe by which it expects to complete the undergrounding of 10,000 miles. As of November 16, 2021, PG&E expects to underground approximately 51 miles in 2021 (down from an anticipated 66 miles based on October 2021 data) and a total of approximately 357 miles from 2021-2023. PG&E should disclose its estimated time to underground 10,000 miles, as well as its plan for accelerating undergrounding work, and follow through on its commitment. Otherwise, PG&E's current rate of progress suggests that PG&E will need approximately 84 years to underground 10,000 miles.

The situation is similar for system hardening more broadly and not only undergrounding. That is, even assuming PG&E were able to harden 500 miles per year (roughly 300 miles more per year than its current rate), including fire rebuild work (which is unpredictable), PG&E would not be able to harden 10,000 miles for at least 20 years. To provide additional clarity on PG&E's system hardening pace to date, the chart below illustrates the amount of system hardening work PG&E committed to the CPUC for each year in its plan; how much of that hardening work was planned or traditional hardening work (that is, non-fire rebuild); how much ultimately was fire rebuild; the total amount of hardening done inclusive of fire rebuild work; and the variance or shortfall from the plan targets if those targets did not include fire rebuild miles.

Year	Plan Target Miles	Non-Fire Rebuild	Fire Rebuild	Total	Shortfall From Target If Remove Fire Rebuild Miles
2019	150.0	126.1	45.1	171.2	23.9 miles (15.9% of target)
2020	220.0	147.9	194.2	342.1	72.1 miles (32.8% of target)
2021 (as of 12/14/2021)	180.0	128.4	78.7	207.0	51.6 miles (28.7% of target)

III. GAS OPERATIONS

The Monitor team has carefully reviewed PG&E's statements and assertions concerning Gas Operations. We do not believe any further context or clarification is required to address relevant issues beyond what was said in the initial Monitor Report of November 19, 2021.

IV. CONCLUSION

We offer one final observation that is not a clarification, but an emphasis on a point where there was alignment in both PG&E's and the Monitor team's reports: to make PG&E's service territory safer, PG&E employees need to err on the side of caution and risk mitigation in all of their decision-making, especially when facing "close call" situations. This overarching point cannot be overstated. To create a safer service territory, PG&E employees need to be empowered to remove risk, especially in its wildfire mitigation efforts, even where doing so would result in operational inefficiencies or increased costs. PG&E's Report seems to acknowledge this, and we have heard Company management express this view as well, but the Monitor team believes that there is still a disconnect between what senior management says in all sincerity, and what ultimately can happen in the field. We hope that PG&E's expression of this safety-first mindset in its Report will foster further sustained organizational commitment to achieve it, and that the mindset will permeate the organization in the months and years to come, because that safety-first attitude will ultimately save lives.