

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA,

No. CR 14-0175 WHA

Plaintiff,

v.

PACIFIC GAS AND ELECTRIC
COMPANY,

**ORDER MODIFYING
CONDITIONS OF PROBATION**

Defendant.

A fundamental concern in this criminal probation remains the fact that Pacific Gas & Electric Company, though the single largest privately-owned utility in America, cannot safely deliver power to California. This failure is upon us because for years, in order to enlarge dividends, bonuses, and political contributions, PG&E cheated on maintenance of its grid — to the point that the grid became unsafe to operate during our annual high winds, so unsafe that the grid itself failed and ignited many catastrophic wildfires. In the past three years alone, PG&E wildfires killed at least 108 and burned 22,049 structures. It will take years, now, for PG&E to catch up on maintenance so that the grid can safely supply power at all times. The conditions of probation herein have been aimed at requiring PG&E to do so. It's evident, however, that more is necessary.

* * *

Let's go back to the beginning. In 2010, an underground gas pipeline owned and operated by PG&E exploded in San Bruno. Eight people burned to death or died from wounds. Fifty-eight survived with injuries, and over 100 homes burned. In August 2016, a federal jury convicted PG&E on five federal felony counts of knowingly and

1 willfully violating pipeline maintenance safety standards. The jury also convicted
2 PG&E on one felony count of obstructing the government's investigation into the cause
3 of the explosion. PG&E had knowingly kept inaccurate and deficient records of
4 pipeline maintenance, knowingly violated federal safety standards, and was ultimately
5 responsible for the explosion.

6 A corporation cannot be imprisoned, so District Judge Thelton Henderson
7 imposed the most severe fine possible and imposed the longest possible period of
8 probation, five years. He also imposed an independent monitor to oversee and report
9 on PG&E's rehabilitation. After Judge Henderson's retirement, this case was re-
10 assigned to the undersigned.

11 One year into its probation, PG&E struck again. In October 2017, the Wine
12 Country Fires — including the Atlas and Nuns fires — ravaged tens of thousands of
13 acres in Northern California. According to CAL FIRE, PG&E ignited seventeen of the
14 twenty-one major Wine Country wildfires. This time the culprit was PG&E's
15 electricity grid. These seventeen fires alone killed 22 people and destroyed 3,256
16 structures. Following the Wine Country fires, the monitor, the federal prosecutors,
17 PG&E, and the Court agreed that the monitor would evaluate PG&E's electric-
18 distribution operations, including PG&E's vegetation-management plan, and equipment
19 maintenance and inspection programs.

20 CAL FIRE found that at least three of the Wine Country fires were specifically
21 caused by PG&E's violation of Section 4293 of the California Public Resources Code,
22 which requires utilities to maintain a specified clearance between any part of the tree
23 and energized power lines and to remove all hazardous trees or limbs that might fall on
24 the lines.

25 When limbs or trees fall on energized distribution lines, the un-insulated
26 conductors can be pushed together and "short out," causing sparks and molten metal to
27 fall, usually onto dry grass below. There's nothing unusual about the lines being un-
28 insulated, for that's true of virtually all power lines. But given this danger, PG&E has

1 long been responsible under Section 4293 for identifying and removing hazardous trees
2 and limbs which threaten distribution lines. Yet because PG&E skimped on vegetation
3 maintenance, an ever-greater backlog of hazard trees and hazard limbs grew year after
4 year.

5 In November 2018, the Camp Fire in Butte County, the deadliest wildfire in
6 California history, destroyed the town of Paradise, killed 85 people, and burned 18,793
7 structures. Again, the fire was caused by PG&E. One cause was the collapse of a
8 worn-out, ancient C-hook hanging from a PG&E electricity transmission tower, and
9 another was a tree falling on a PG&E distribution line, all as strong winds swept the
10 region.

11 A few days ago, PG&E announced it would plead guilty to 84 counts of
12 manslaughter arising out of the disaster, admitting that it started the Butte County fire.
13 In addition to the anticipated \$13.5 billion that PG&E will pay in the victim's
14 compensation fund, the plea agreement will fine PG&E \$3.5 million, and require it to
15 pay the District Attorney's office half a million dollars to cover the cost of its
16 investigation. *See* THE NEW YORK TIMES, "PG&E Will Plead Involuntary
17 Manslaughter in Camp Fire" (Mar. 23, 2020).

18 In the immediate aftermath of the Butte County conflagration, this Court initiated
19 a series of probation hearings in early 2019 (including a view of the Butte County ruins
20 by the undersigned and the PG&E board and officers) to determine what further safety
21 conditions should be imposed to protect California from further mayhem by PG&E.
22 This led to these further probation conditions (Dkt. No. 1040):

- 23 1. PG&E must fully comply with all applicable laws
24 concerning vegetation management and clearance
25 requirements, including Sections 4292 and 4293 of
26 the California Public Resources Code, CPUC
General Order 95, and FERC FAC-003-4.
- 27 2. PG&E must fully comply with the specific targets
28 and metrics set forth in its wildfire mitigation plan,
including with respect to enhanced vegetation
management. Compliance with these targets and

metrics, however, will not excuse any failure to fully comply with the vegetation laws as required in paragraph 1.

3. The monitor shall assess PG&E's wildfire mitigation and wildfire safety work, including through regular, unannounced inspections of PG&E's vegetation management efforts and equipment inspection, enhancement, and repair efforts. The inspections will include both inspections of segments of power lines where PG&E has conducted its enhanced vegetation management efforts pursuant to its wildfire mitigation plan, as well as areas where enhanced vegetation management has yet to occur. The inspections will further include field interviews and questioning of PG&E employees and contractors.
4. PG&E shall maintain traceable, verifiable, accurate, and complete records of its vegetation management efforts. PG&E shall report to the monitor on the first business day of every month on its vegetation management status and progress, and make available for inspection all related records at the monitor's request.
5. PG&E shall ensure that sufficient resources, financial and personnel, including contractors and employees, are allocated to achieve the foregoing. If PG&E cannot find enough contractors, then PG&E must hire and train its own crews to trim and remove trees. To ensure that sufficient financial resources are available for this purpose, PG&E may not issue any dividends until it is in compliance with all applicable vegetation management requirements as set forth above.

In addition, this Court strongly urged, although did not require, PG&E to temporarily de-energize any power line unsafe to operate during dry-season windstorms. At the time, PG&E protested the idea and resisted any order to engage in such temporary de-energizations, but in fact, PG&E eventually implemented eight power shutoffs voluntarily in 2019, which came to be known as Public Safety Power Shutoffs (PSPSs). This became an important safety development. *Most significantly, during the entire wildfire season in 2019, no lives or homes were lost from wildfires started by PG&E's distribution lines.* This safety improvement stands in stark contrast to the preceding years. Troublesome as those power shutoffs certainly were, that trouble paled by comparison to the death and destruction caused in the preceding years

1 by wildfires ignited by PG&E's distribution lines during dry-season windstorms. We
2 learned how necessary those power shutoffs actually were because, after each PSPS,
3 crews discovered, in total, 365 fallen limbs and trees strewn across PG&E distribution
4 lines. Even according to PG&E, 291 of those fallen limbs and trees would've likely
5 caused arcing, meaning that sparks and molten metal flashed upon the dry grass or
6 whatever lay below (Dkt. No. 1135 at 3).

7 Here is a photograph of one such wind-blown tree that, but for the PSPS, would
8 likely have caused a wildfire:



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25 A fallen tree blown onto a de-energized PG&E distribution line (Public Safety
26 Power Shutoff Oct. 26–Nov. 1, 2019 Report, Appx. C, Fig. 6).
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28

Those fallen limbs and trees remain proof positive that the PSPS program saved lives and homes. Shutting off the power in those lines in advance of the windstorms was essential to public safety, and PG&E did so. For this PG&E deserves credit.

But at the same time, those hundreds of fallen limbs and trees also remain proof positive of how unsafe PG&E had allowed its maintenance backlog to become.

DISTRIBUTION LINES

This order now addresses the two recurring causes of PG&E wildfires — distribution lines and transmission lines. Distribution lines stand lower, usually strung between wooden poles, about 40 feet off the ground, easily within range of tall trees. Transmission lines stand much higher, well above treetops, usually strung between metal towers.

The long-term solution for the distribution lines remains the same — PG&E must come back into full compliance with California’s tree clearance requirements. The conditions for probation in this criminal case specifically require PG&E’s full compliance with Section 4293 and all other laws concerning vegetation management and clearance requirements. In 2019, our Legislature insisted that PG&E develop and honor a wildfire mitigation plan, which the company submitted to the California Public Utilities Commission. Another condition of probation requires PG&E’s full compliance with its own plan.

To be sure, PG&E has recently stepped up its hazard tree and limb operations, but still admits it has fallen short. In truth, PG&E remains years away from compliance with California law and with its own wildfire mitigation plan (Dkt. No. 1132 at 4). When asked about its compliance, PG&E told the Court that given the “dynamic environment” of its purview, it remained “unable to certify perfect compliance” with the probation conditions (Dkt. No. 1129). That is an understatement.

Twenty-two thousand trees identified by PG&E as “hazardous” remain unworked. Last year, PG&E received over 40 notices from regulatory agencies identifying clearance violations. In that year alone, CAL FIRE identified 75 hazardous

1 limbs and trees that violated Section 4923, the four-foot clearance requirement between
2 limbs and power lines. Those are just the ones stumbled onto by CAL FIRE —
3 thousands more lurk in the grid. Furthermore, PG&E reported that it failed to complete
4 its crucial CEMA inspections. PG&E developed CEMA — the “Catastrophic Event
5 Memorandum Account” program — in response to severe drought conditions in
6 California, and the program runs additional inspections on all distribution lines in high
7 fire-threat districts. PG&E completed only 80% of CEMA inspections in 2019, citing
8 scheduling problems.

9 To patrol and trim its lines, PG&E has long since outsourced all responsibility,
10 both as to inspections to identify hazard trees and limbs, and as to cutting the trees and
11 limbs. After the disasters of 2017 and 2018, PG&E ramped up its outsourcing. It now
12 has under contract over 1,000 “pre-inspectors” to flag trees that violate clearance
13 requirements, and roughly 5,000 tree-trimmers to follow behind to remove hazard trees
14 and limbs. This large uptick in effort has only made a small dent in the backlog of
15 hazard trees and non-compliant vegetation management. Even if this effort had been
16 perfectly executed, it will still take close to a decade to come into compliance with
17 California law.

18 But this effort is *not* being perfectly executed — far from it. PG&E’s work,
19 though accelerated, misses dangerous conditions entirely. In 2019, the monitor spot
20 checked the work, putting boots to the ground and independently inspecting over 550
21 miles of lines in high fire-threat districts. On miles which had just been subject to
22 PG&E’s “enhanced” inspections, the monitor found 3,280 “risk” trees that PG&E
23 contractors had failed to identify. Among these missed hazards were *fifteen* urgent
24 conditions that could have resulted in fatalities, injuries, or serious damage if not fixed.
25 Inasmuch as PG&E works on a one-year inspection cycle, these conditions might not
26 have been fixed in time.

27 In one instance, PG&E contractors had recently marked an urgent condition —
28 where a tree was one foot away from a primary conductor — as “tree work complete.”

1 Similarly, a tree touched a primary conductor right outside the driveway of a home.
 2 Upon notification by the monitor, PG&E sent tree-trimmers to the scene immediately,
 3 who fixed the problem that same day. In another case, the monitor identified a tree
 4 within inches of a primary conductor. The leaves of the tree bore burn marks from the
 5 ongoing intermittent contact. That tree had been identified for routine compliance
 6 work in November 2018, and tree-trimming contractors reported they had completed
 7 the work in February 2019, although clearly they had not. (This prompted PG&E to
 8 conduct an internal investigation into potential records falsification.) In total, the
 9 monitor identified ten instances where PG&E's records indicated that specific trees had
 10 been worked when, in fact, they had not been.

11 Thanks to the monitor's spot checks, PG&E went out and fixed all these urgent
 12 problems. The point, however, is that PG&E's outsourcing scheme remains sloppy and
 13 unreliable. PG&E is fond of handing up records indicating completed work, but the
 14 monitor's spot-checks show how untrustworthy these records can be.

15 What is needed is an in-house team to do what the monitor has been doing —
 16 spot-checking the work. More than that, the in-house PG&E team should include pre-
 17 inspectors to study the lines to mark trees and limbs in need of removal. Then, as the
 18 monitor has been doing, the in-house team should at least spot-check the contractors'
 19 work to see if it was done right.

20 In addition to the conditions of probation already in effect, the Court now imposes
 21 the following new condition of probation in order to protect the public from further
 22 death and destruction resulting from PG&E-caused wildfires, and to promote the
 23 rehabilitation of PG&E, among other goals of 18 U.S.C. §§ 3553(a)(1) and (a)(2):

- 24
- 25 6. PG&E shall employ its own cadre of pre- and post-
 26 inspectors on its own payroll. PG&E shall employ
 27 a sufficient number of inspectors to manage the
 28 outsourced tree-trimming work. The pre-inspectors
 must identify trees and limbs in violation of
 California clearance laws that require trimming.
 Post-inspectors must spot-check the work of the
 contracted tree-trimmers to ensure that no hazard

trees or limbs were missed. PG&E shall set clear guidelines on the colors and tags used to indicate hazard trees and limbs. PG&E shall submit a detailed by plan by May 28, 2020, to carry out this requirement.

TRANSMISSION LINES

While hazard trees threaten the distribution lines, a different set of dangers plague PG&E's transmission towers, those tall steel towers that rise far above the tree tops (so there's no risk of trees falling on the lines). For transmission towers, the problem is defective and worn-out hardware on the towers themselves. The Butte County fire, for example, started because an old C-hook had become so deeply gouged from decades of swaying against the plate on which it hung that the C-hook simply broke and fell, causing the attached power line to fall onto the metal tower, spewing sparks onto the wind-blown dry grass below. (And, as mentioned, just two miles away, minutes after C-hook failure, a tree blew onto a nearby PG&E distribution line, igniting a second source for the conflagration.)



The deep gouging of a C-hook, caused by many decades of swaying in high wind (Dkt. No. 1123, Exh. A).

The transmission tower had supposedly been assessed *just days before* the fire. Just days before the broken C-hook fell, PG&E sent contractors to conduct a “non-

1 routine” enhanced inspection — an unusual occurrence — on the line (Dkt. No. 1146).
2 PG&E refused to say why it sent contractors to inspect the line but conceded that the
3 line’s age was a factor. Inspectors climbed the hundred-foot tall towers, presumably
4 searching for equipment deficiencies, yet reported *zero* instances of cold-end hardware
5 issues such as worn-out C-hooks.

6 After the fire, inspectors went back to the line and identified 32 C-hooks similarly
7 so gouged that they’d require immediate replacement. These had all been missed by
8 the “enhanced” climbing inspection. (PG&E permanently de-energized the entire line.)

9 Similarly, although CAL FIRE has not yet announced its findings, evidence
10 strongly indicates that the Kincade Fire in Sonoma County just last November was
11 caused by PG&E. Photographs of a charred jumper cable on the Burned Mountain
12 Tower indicate that the jumper simply broke loose during a windstorm, made contact
13 with the metal tower, and shorted out, tossing electrical sparks onto the dry wind-blown
14 grass. Earlier in 2019, *three separate inspections* — via tower climbers in February,
15 high-resolution drone imaging in May, and ground inspectors with binoculars in July
16 — had all failed to identify the problematic jumper cable.

17 Like a broken record, PG&E routinely excuses itself by insisting that all towers
18 had been inspected and any noted faults were addressed, at least according to its
19 paperwork. But these transmission tower inspections failed to spot dangerous
20 conditions. Was this because the inspections were poorly designed or was it because
21 they were poorly executed? Had someone falsified inspection reports? It is hard to get
22 a straight answer from PG&E. The offender is masterful at falling back on the
23 inspection reports and saying “See, Judge, we had that very line inspected and all was
24 well,” or, “We fixed whatever they found wrong. We did our part.” The reports,
25 however, are a mere courtroom prop. In the Kincade Fire, for example, three recent
26 inspections of the tower in question — once by drone, once by climbing, and once by
27 ground — all found nothing wrong, yet the jumper cable broke free, starting a
28 catastrophic wildfire. Despite the deluge of inspection records served up by PG&E,

responsibility for what went wrong cannot be fathomed from those reports. This inspection system fails to hold the inspectors accountable.

Under current protocol, PG&E contractors do not accurately assess the degree of corrosion on the type of hardware that broke and caused the Butte County fire. For example, contracted inspectors could not agree on the amount of wear of a deeply gouged C-hook on a line parallel to Butte County's Caribou-Palermo line. Three contracted inspectors gave ballpark estimates between five percent and 30% wear. Yet an expert witness rated the wear at 30-50%, which would necessitate immediate replacement. And, because PG&E's inspection forms only ask inspectors to check *yes* or *no* to the prompt "cold-end hardware in poor condition," any degree of wear simply went unmarked.

Because there is no protocol for determining the percentage of wear on a piece of equipment, let alone the degree of wear necessitating replacement, more C-hooks could break at any moment. We are vulnerable to the possibility of another Butte County fire because ancient PG&E equipment goes unchecked. But PG&E *is* capable of conducting better assessments on transmission tower hardware. And, if records accurately tracked equipment age and degree of wear, PG&E could estimate better when to replace potentially dangerous tower parts before they fail.

As a further condition of probation, PG&E must keep records sufficient to identify when a piece of equipment is in danger of failing, and must require inspections that truly assess the state of equipment. In addition to the conditions of probation already in effect, the Court imposes the following new conditions:

7. PG&E must keep records identifying the age of every item of equipment on every transmission tower and line. Every part must have a recorded date of installation. If the age of a part is unknown, PG&E must conduct research and estimate the year of installation.
8. In consultation with the monitor, PG&E shall design a new inspection system for assessing every item of equipment on all transmission towers. Forms shall be precise enough to track what

inspectors actually do, such as whether they touch or tug on equipment. Videos must be taken of every inspection. PG&E shall submit plans for its new inspection system to the undersigned for approval by May 28.

9. PG&E shall require all contractors performing such inspections to carry insurance sufficient to cover losses suffered by the public should their inspections be deficient and thereby start a wildfire.

* * *

The Court notes with approval the order of the CPUC Administrative Law Judge Peter Allen requiring that PG&E hire an independent monitor to continue what the federal monitor has been doing, keeping in mind the fact that the federal monitorship will end in 19 months when probation ends. The Court believes it would be productive for the CPUC and the federal monitor to meet with PG&E to devise ways to carry out the new conditions set forth above. In fact, the Court will be flexible in approving any protocols that achieve the essence of the foregoing new conditions if all such parties so recommend. Again, any such plan is due by May 28.

Given that probation will end in January 2022 (and cannot be extended), this order will describe a few points that deserve consideration by the CPUC, the Governor, and the Legislature, as PG&E moves beyond its probation.

First, utilities should be fined for violating vegetation management and infrastructure remediation requirements. PG&E does not currently face punishments for these violations of California law. The state could impose harsher penalties for PG&E's failure to maintain proper vegetation clearances, including failure to mitigate hazard trees and limbs within a reasonable period of time, and impose harsher penalties for PG&E's failure to address infrastructure remediation tags within regulatory time frames. The state could consider a regulatory-based penalty proceeding, relying on sheriffs, the Highway Patrol, CAL FIRE, and so on to flag violations for the CPUC to investigate.

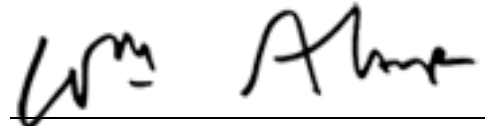
Second, executive bonuses should be tied to safety management. Mid- and senior-level executives at PG&E should be paid out on their yearly bonuses *on the condition*

1 that PG&E met all of its wildfire abatement targets in the annual Wildfire Safety Plan.
2 Had this policy been in effect last year, bonuses would hypothetically not have been
3 distributed, because PG&E reported meeting only 46 of their 53 internal safety targets.

4 *Third*, during the high-wind events, we must continue to tolerate PSPSs as the
5 lesser evil until PG&E has come into compliance with state law and the grid is safe to
6 operate in high winds. But as segments of lines do come into compliance and do
7 become safe, PG&E should configure the grid to keep those segments energized, while
8 denying power to the unsafe segments.

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10 **IT IS SO ORDERED.**

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12 Dated: April 29, 2020.



WILLIAM ALSUP
UNITED STATES DISTRICT JUDGE