

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of Pacific Gas and Electric
Company for Approval of its Mobile
Application and Supporting Systems Pilot.

(U 39 E)

Application No. 19-07-019
(Filed July 29, 2019)

**OPINION DYNAMICS' FURTHER AMENDED
EVALUATION FINAL REPORT REGARDING PACIFIC
GAS AND ELECTRIC COMPANY'S (U 39 E) REPORT IT
MOBILE APPLICATION PILOT AND PACIFIC GAS AND
ELECTRIC COMPANY'S RESPONSE**

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Dated: November 6, 2023

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Administrative Law Judge Wercinski's Ruling of July 3, 2023, requested comments on (1) Opinion Dynamics' June 30, 2023, Evaluation Draft Report (Draft Report) regarding Pacific Gas and Electric Company's (PG&E) Report It mobile application pilot, (2) Opinion Dynamics' slides regarding the Report, (3) PG&E's Response to Recommendations, and (4) PG&E's slides regarding PG&E's Response to Recommendations.^{1/} The Ruling required comments be filed and served by July 31, 2023.^{2/} Having received no comments, PG&E filed its Final Report on August 25, 2023. There were no changes made to the June 30 Draft Report to produce the Final Report; this includes the absence of party comments. PG&E then filed an amendment to the Final Report on September 15, 2023. Today, PG&E has made additional amendments to the Final Report and respectfully submits it for formal filing as follows:

Exhibit A: Opinion Dynamics' Evaluation Final Report dated November 6, 2023;

Exhibit B: PG&E's Response to Recommendations;

Exhibit C: Opinion Dynamics' slides regarding the Report; and

Exhibit D: PG&E's slides regarding PG&E's Response to Recommendations.

^{1/} Ruling of July 3, 2023, A.19-07-019.

^{2/} Id.

EXHIBIT A



Opinion **Dynamics**

PG&E Report It Mobile App Evaluation

Phase II Report - Final

November 6, 2023



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1. Executive Summary

PG&E developed and launched its mobile app, PG&E Report It, at the direction of the California Public Utilities Commission (CPUC). The CPUC directive sought to have the utility improve its wildfire safety practices by enabling its customers to conveniently and rapidly make a safety report addressing a PG&E electric asset in a manner that assures transparency and promotes responsiveness by PG&E. The CPUC Decision, which resulted from [Wildfire Investigation \(I.\)19-06-015](#)¹ undertaken by the CPUC, specified the terms for the PG&E Report It pilot. These included the app's required target market, functionality, and date to bring to market. They also required an independent evaluation to assess the merits of the pilot, the value of the app, and the response by PG&E to the CPUC's order, among other items. The pilot and its assigned CPUC rulemaking, which provides the regulatory oversight framework for the PG&E app effort, are both in progress, with the CPUC and the utility awaiting the findings and conclusions of this Evaluation Report to make an informed decision of appropriate next steps.

Opinion Dynamics' evaluation effort began one year after the PG&E Report It pilot was made publicly available and occurred from approximately March 2022 through March 2023. While not a requirement for non-energy efficiency programs, the approaches used in this evaluation adhere, where applicable, to the California Energy Efficiency Evaluation Protocols for Process Evaluations.²

1.1 Evaluation Scope

The evaluation covered seven primary topics: pilot evaluability; feedback from pilot staff and internal contractors (referred to as '**PG&E staff**'); app user experience; feedback specifically from PG&E employees and contractors who used the app (referred to as '**stakeholders.**');³ customer perception of marketing, education, and outreach (ME&O); the nature of safety reports submitted to the app; and a cost analysis.

While there are many possible lenses for evaluating the pilot, Opinion Dynamics developed this specific scope, in collaboration with PG&E and the CPUC, based on research priorities and available budget. The following topics were out of scope for this evaluation:

- Assessment of the triage process.
- Whether or not the submissions were categorized 'valid' or 'invalid' correctly.

¹ The CPUC's Order Instituting Investigation I.19-06-015 implicated PG&E in the 2017 Northern California Wildfires, and directed the utility to "develop an open source, publicly available mobile app" to "enable the public to capture and transmit GPS-geocoded photos of potentially hazardous electrical hardware to the utility."

² April 2006. *California Energy Efficiency Evaluation Protocols: Technical, Methodological and Reporting Requirements for Evaluation*. Accessible here: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/energy-efficiency-evaluation>.

³ 'Stakeholders,' in this instance, includes individuals who identified as either a utility worker, road crew worker, tree service worker, or first responder in the app (while submitting a safety report) or who identified themselves as a PG&E employee, contractor, or supplier in the User Survey. While some of these people worked in the field and others worked in PG&E offices, all considered themselves responsible for public safety (to varying degrees).

- Marketing collateral audit: while we assessed the media selected, the timing of campaigns, and the number of customers and partner agencies targeted, we did not evaluate the messaging or creative elements of those campaigns.
- Critique of in-app or post submission communications.
- Avoided costs associated with wildfire prevention. This was not evaluable based on the uncertainty about the likelihood and scale of avoided fires.
- Estimated minutes of avoided service outage disruptions. This was not evaluable based on the uncertainty of which safety issues would have caused outages, or how long it would have taken to restore power.
- Avoided calls to call center. This was partially explored through surveys, but alternative methods would need to be employed to address the speculative nature of assessing what customers would have done in absence of the app.

Considerations for future evaluations are available in APPENDIX F.

1.2 Approach

The evaluation consisted of two phases:

- Phase I had us interview PG&E staff, review myriad files received in response to our initial data request, and take a close look at PG&E's ME&O used to promote the app to both residential customers and PG&E partners. These partners include third-party companies and agencies dedicated to public safety. While PG&E was not able to provide all the data we requested at that stage, we determined we had sufficient information to move forward and evaluate the PG&E Report It pilot.
 - By the conclusion of the evaluation, PG&E had been able to fulfill most of our outstanding data requests. See APPENDIX H.
- Phase II had us conduct research to better understand the user experience and the app's efficacy. We developed two survey questionnaires and two distinct, corresponding samples that consisted of app users and target customers. Both cohorts were sent emails inviting them to participate; each customer received a unique link to an online survey. No customer was invited to participate in more than one survey.
 - One survey (the 'User Survey') targeted individuals who had submitted at least one safety report using the mobile app. These users included residential customers as well as PG&E stakeholders. (As noted above, 'users' includes both types.)
 - The second survey ('ME&O Survey') targeted residential customers who had received ME&O encouraging them to download and use the app but had not yet submitted a safety report. Note that some of these target customers had downloaded the app and some had not. This is a factor we explored in the ME&O Survey.

We also completed 11 in-depth interviews with users who self-identified as PG&E stakeholders. Most (n=9) worked directly for PG&E and all participants considered themselves responsible for safety, even if that was not a primary responsibility of their respective jobs.

In addition, we analyzed usage and cost data pertaining to PG&E Report It. We examined the app's data for user-submitted safety reports to identify trends and outliers and assessed both valid (appropriate for the app) and invalid (inappropriate for the app) safety reports submitted via the mobile app. Our analysis of the app's cost data included comparing its development and maintenance expenses to PG&E's other wildfire prevention measures, including its Enhanced Vegetation Management program. We also compared PG&E Report It to PG&E's call center costs for safety-related calls. Separately, we compared the app's ME&O costs to those for three existing social safety net programs administered by PG&E: California Alternative Rates for Energy (CARE), Family Electric Rate Assistance (FERA), and the Medical Baseline Allowance.

1.3 Key Findings

Our evaluation indicates the app is effective at preventing wildfire and improving public safety. More than 20% of the safety reports submitted from the time the app became publicly available (July 2021) through mid-February 2023 were confirmed as clear and present ignition risks. More than 40% of submissions during the same time period constituted actual safety concerns (i.e., posed hazards including and beyond wildfire were not previously known to PG&E). Perhaps equally important, the app appears to encourage users to proactively scan their environment for safety concerns. This suggests the app is driving greater awareness and vigilance against wildfire and public safety risks.

In our opinion,⁴ PG&E Report It also provides a quality user experience. More than 75% of users are mostly or somewhat satisfied with the app, and even more (86%) plan to use the app again. Users are satisfied with the app's ease of use and convenience, especially compared to calling the call center. When users are dissatisfied, it is typically rooted in PG&E's response time and when the utility's resolution of their safety concern does not meet their expectations.

Stakeholders would like to see the app's offerings expanded to include gas assets and underground infrastructure. We also heard frustration from users (n=24) when they had trouble uploading their photos or logging their location,⁵ even after PG&E had updated those features.

Users are mostly submitting reports correctly: 67% of safety reports were valid. We did not evaluate the parameters of 'valid' or 'invalid' themselves, as the qualifying standards for valid report submissions were established in the Decision. PG&E's triage staff determine a safety report to be 'invalid,' when the concern does not meet the Decision compliance guidelines. Given that more than 30% of users are submitting invalid reports mostly related to non-PG&E assets and some (8% of total

⁴ Given this is the first app of its kind—at not only PG&E, but at any US utility—we looked to the 2022 Electric Utility Residential Customer Satisfaction Study conducted by J.D. Power to help us establish a target score. Overall satisfaction among study participants was 731 points out of 1,000 (73.1%). Thus, we consider a 75% satisfaction rating to be good (as opposed to 'fair' or 'excellent'). See [2022 Electric Utility Residential Customer Satisfaction Study | J.D. Power \(jdpower.com\)](#) for more information.

⁵ Some respondents to our App User Survey expressed dissatisfaction with uploading photos or establishing their location (n=49), but only half of those (n=24) had submitted safety reports after PG&E had updated these features. The other half had submitted reports *prior* to PG&E updating the app.

submissions) emergencies,⁶ however, further customer education is warranted. Based on survey findings, we recommend using a variety of communication channels with an emphasis on email and PG&E's website. More information on the triage process is available in APPENDIX E.

Our findings reveal that app users believe wildfire prevention is everyone's responsibility (Figure 4). Both passive users (who have only downloaded the app) and active users (who have submitted at least one safety report) reported they "completely" or "somewhat" agree that "we all have a role to play in preventing wildfire" (95%). This implies the app has successfully engaged customers for whom wildfire prevention is a priority. Moreover, 74% of users pay more attention now that they know to look for safety issues, indicating the app also influences customer behavior. The survey data also showed that the app increased many customers' (46%) satisfaction with PG&E, reinforcing our assessment that it is also a powerful customer engagement tool.

We recommend improving PG&E Report It by finetuning ongoing management and further enhancing its development, specifically its functionality, data collection, and ME&O. For example, duplicate submissions are counted among individual safety concerns reported multiple times (by more than one user, or multiple times by a single user) as well as reported safety concerns of which PG&E is already aware; we believe further analysis can be done if the two are considered separately. PG&E's greatest opportunity for scaling the app is in its ME&O. Customer education is warranted, as are timely seasonal reminders to use the app to report safety concerns. Similarly, PG&E has an opportunity to enhance the customer experience by assessing its in-app and post-submission communications; note this activity was not part of our evaluation of PG&E Report It.

Given our findings in this evaluation, we recommend transitioning the PG&E Report It pilot into a program and expanding the app's capability to accommodate users across PG&E's service territory.

1.4 Summary of Conclusions and Recommendations

This evaluation concluded that the app,

- has enabled users to alert PG&E to ignition risks and other safety hazards,
- is a minor expense compared to PG&E's other costs for wildfire prevention,
- encourages users to report safety concerns (and to possibly look for them),
- has high overall customer satisfaction, and
- is used appropriately by most customers and stakeholders.

We recommend that the PG&E Report It mobile app be elevated out of pilot status to become a permanent PG&E electric safety program. As a part of the transition, we recommend that PG&E make available the resources necessary to optimally expand the mobile app's reach throughout PG&E's electric service territory. We also encourage a robust ME&O campaign that encourages both

⁶ PG&E's customer communications do not use the term 'invalid' as this is language used for internal reporting purposes only.

awareness of wildfire prevention and how to correctly distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app.

Below, we briefly summarize a number of more specific recommendations from this study. Detailed conclusions and recommendations are available in Section 4.

1.4.1 Ongoing Management

- Work across the utility (e.g., call center, risk management, marketing) to address data and evaluability gaps in preparation for any future evaluations.
- Make raw data easily accessible to key staff within the PG&E Report It pilot team.
- Leverage lessons learned and processes developed during this evaluation to streamline future data requests.

1.4.2 Programming and Process

- Continue with plans to make additional improvements prior to scaling the app to more users or geographies.
- Track and/or rank ignition risks using location data, equipment, and labor costs to better understand app benefits.
- Determine if the app's programming could support a map-based user alert for Tier 1 High Hazard Zones (HHZs) that encourages the user to call 9-1-1 in potential emergencies.
- Continue to support the PG&E Report It for both Apple and Android platforms.

1.4.3 User Behavior

- Continue to track and identify duplicate submissions along with who is providing duplicate submissions (e.g., single versus multiple users) to understand the root causes of this behavior.
- Consider a few potential opportunities to improve user experience and satisfaction: reminders for customers to check their "spam" folders; providing more explanation regarding submission resolution; and alerts related to being in online or offline mode.

1.4.4 ME&O

- If PG&E plans to encourage use by stakeholders other than the general public (e.g., PG&E employees, contractors, and partners), then targeted outreach (in addition to its pilot phase presentations) is warranted.
- Consider opportunities to better support non-English language speakers in reporting safety concerns, either through the app or the call center.
- Consider additional message testing for outreach, education, and increased use prior to fire season and significant storms.

- Identify which types of assets customers often mistake for PG&E's. Then consider adding information to the PG&E Report It app.
- Use a variety of media to remind customers of the app and reinforce usage behavior.
- Thank customers at large for using the app and acknowledge that customer submissions help PG&E.
- Share statistics on PG&E's website about the number of ignition risks, safety hazards, and safety violations that users have reported and PG&E has resolved.

2. Introduction

2.1 PG&E Report It Background

In July 2021, PG&E made a new mobile app pilot publicly available; the PG&E Report It pilot (henceforth referred to as 'PG&E Report It') included several supporting activities and processes. Pilot activities included ongoing technical support and improvement of the app itself; staff review and response to user submissions (i.e., safety reports); and ME&O campaigns.

In [Decision \(D.\) 20-10-003](#), the CPUC directed PG&E to develop PG&E Report It, with the goals of preventing wildfires, enhancing electric utility safety, and ensuring grid resiliency and reliability.

The CPUC directive sought to have the utility improve its wildfire safety practices by enabling its customers to conveniently and rapidly make a safety report addressing a PG&E electric asset in a manner that assures transparency and promotes responsiveness by PG&E. The CPUC Decision, which resulted from a Wildfire Investigation, [I.19-06-015](#), undertaken by the CPUC, specified the terms for PG&E Report It. These included the app's required target market, functionality, and date to bring to market.

PG&E Report It is intended to complement PG&E's call center, which features a toll-free phone number and 24/7 triaged support. Both PG&E Report It and the toll-free number are meant to encourage and enable PG&E customers to report potential non-emergency safety concerns, thus giving the public more than one way to directly participate in wildfire prevention. (Customers are expected to dial 9-1-1 to report emergencies.) The app provides additional functionality beyond what is available when contacting the call center, including the ability for users to track the progress of the safety reports they submit, increasing PG&E's public accountability.

As part of the requirements of the CPUC Decision, PG&E contracted with third-party evaluator, Opinion Dynamics, to conduct an evaluation of PG&E Report It. The evaluation, in consultation with the CPUC's Safety Policy Division (SPD), addresses whether the app improves public safety, is reasonable and in the public interest, and whether it should be made permanent.

2.2 Study

Early in the evaluation (Phase I), we assessed the degree to which we would be able to evaluate PG&E Report It, given the data available. Our initial goal was to understand the app's development,

promotion, launch and ongoing maintenance. We then sought to gauge the customer experience to date in terms of user feedback and the development team’s work to fix bugs and improve functionality. (‘Users’ refer to customers who have submitted safety reports via the app.)

Later in the evaluation (Phase II), we wanted to understand how customers were using the app; our goal was to discern correct versus incorrect usage, and to also determine the kinds of safety concerns being reported and if such perceived deficiencies posed ignition risks. To identify opportunities for future customer education, we examined instances of incorrect usage (‘invalid’ reports) and user dissatisfaction.

We also wanted to learn how customers wished to receive information about the app, and how PG&E could improve both the app itself and its related communications. Finally, we wanted to know how PG&E Report It costs compared to PG&E’s other wildfire prevention measures and similar ME&O campaigns.

2.3 Research Methods

Table 1 summarizes the research tasks used to address the study objectives.

Table 1. Summary of Research Approach

Research Task	Description
Evaluability Assessment	Examine available data to determine if they are sufficient to answer questions posed in the CPUC Decision.
Staff Interviews	Meet with PG&E staff responsible for PG&E Report It’s development, promotion, launch, and maintenance to learn how the app works, what its management entails, and staff perception of how the app is being used.
Customer Surveys	Ask customers about their experience receiving ME&O, their motivation for using the app, their satisfaction, and recommendations for its improvement.
Stakeholder Interviews	Conduct one-on-one interviews with users who self-identified as utility workers, road crew workers, tree service workers, first responders, or a PG&E employee, contractor, or supplier to assess if and how they used the app in their jobs and how it compares to other safety reporting systems including PG&E’s call center.
App Tracking Analytics	Analyze safety report data, including both valid and invalid reports, to understand how customers and stakeholders are using PG&E Report It, and the degree to which the app is helping PG&E prevent wildfire.
Cost Analysis	Compare PG&E Report It expenses to those pertaining to PG&E’s other wildfire prevention measures. Consider cost of user acquisition to costs of other PG&E customer programs.

Additional details on survey methodology and stakeholder interviews can be found in APPENDIX A. and APPENDIX B.

2.3.1 Customer Surveys (Task 7)

The evaluation team administered two surveys to better understand the customer experience.

- **App User Survey:** We surveyed PG&E customers who had downloaded the app and submitted safety reports (i.e., active users). Of the users invited to participate, 184 or 16.3%, completed this survey.
- **ME&O Survey:** In the second instance, we surveyed customers whom PG&E targeted when promoting the app. These customers had not submitted a safety report; however, some may have downloaded PG&E Report It. We considered those users who downloaded the app to be ‘passive users’ and those who did not download the app to be ‘non-users.’ Of customers invited to participate 194, or 1.3%, completed this survey.

For a detailed discussion of survey methodology, including respondent characteristics, see APPENDIX A.

2.3.2 Stakeholder Interviews (Task 8)

Between February and March 2023, the evaluation team completed 11 interviews with PG&E stakeholders about their experiences using PG&E Report It. Interviews typically lasted one hour and ranged between 30 minutes and two hours. Nine of the eleven interviewees were PG&E employees, while the remaining two were employed by external companies (see APPENDIX B.).

We recruited interview participants from survey respondents and app users. We invited 1,142 PG&E Report It users who had submitted a safety report to complete our App User Survey. Participants who self-identified as stakeholders (i.e., utility worker, tree service worker, first responder, road crew worker) received an additional survey question asking if they would be interested in speaking with us about their experiences. Thirteen of those participants indicated they would. In addition to the 13 survey participants, we emailed 21 app users who self-identified as an employee, contractor, or supplier; whose most recent submission was no earlier than July 1, 2022; and who had not completed the survey. Interview recruitment involved sending each of the 34 stakeholders an email invitation and up to two email reminders, as needed.

In the following section we describe each task and discuss our findings. We share our recommendations for PG&E Report It in the conclusion.

2.3.3 Analysis of PG&E Report It (Task 5: App Tracking Analytics)

We examined the app’s efficacy and how it is being used by analyzing safety report submissions from launch on July 28, 2021, through February 10, 2023. Note that PG&E initiated a soft launch on July 8, 2021, among PG&E staff, some of whom participated in our interviews. During our analysis we reviewed data files indicating the nature of the safety concern, the date of submission, location, and corresponding High Fire Threat District (HFTD) tier. We also considered how the safety report was characterized (valid or invalid), if the safety concern represented a true safety hazard, and if it posed an ignition risk.

2.3.4 Cost Analysis (Task 6)

We assessed the cost to develop, launch, and maintain the app and compared its ME&O costs to those for comparable PG&E initiatives. Cost data for PG&E Report It covered its development and maintenance in 2021 and 2022. We reviewed PG&E costs for wildfire prevention in 2021 and 2022, as well as costs associated with promoting its CARE, FERA, and Medical Baseline Allowance programs (also for 2021 and 2022).

3. Detailed Findings

3.1 Evaluability

The following key findings and recommendations are from Phase I of the PG&E Report It evaluation. During this phase, we reviewed the data PG&E provided and assessed whether it was sufficient to answer research questions posed by the CPUC in its Decision.

We determined PG&E Report It to be evaluable. Overall, we were able to obtain most of the data we requested and found these data to be sufficient for measuring the pilot's performance against its metrics. Most metrics (29 of 34) were fully evaluable. Of the remaining five metrics, three were partially evaluable (i.e., there were limitations, but some data was available) and two were not evaluable (i.e., there were no supporting data available). See APPENDIX H. for a list of metrics and their respective evaluability.

The following assessment is based, in part, on safety reports submitted to PG&E Report It from July 28, 2021, through February 10, 2023.

3.2 Outreach and Training

3.2.1 ME&O Efforts

We found PG&E's efforts to promote the app to target customers to be adequate given the number of times (50,990) the app was downloaded. The cost to market the app is also considerably lower than outreach for other programs, which we detail below.

PG&E provided information about the app on its website and briefly via Twitter and Facebook; a radio news outlet covered PG&E Report It after learning about it from PG&E's social media.

Initial efforts to promote PG&E Report It to residential customers in 2021 included the following:

- Email blasts to approximately 325,000 customers who had previously provided their email address to PG&E
- Bill inserts mailed to 505,000 customers
- A postcard mailed to 260,000 customers who were enrolled in paperless billing

In 2022, PG&E sent the same outreach email to approximately 260,000 electric-service customers. In both years, campaigns were scheduled at the beginning of peak fire season. In 2021, PG&E marketed PG&E Report It from July to September; in 2022, the utility marketed it from June to July.

PG&E also began marketing PG&E Report It during a variety of online and in-person events:

- Eight to nine community webinars (April 2021 through October 2022), which also targeted residential customers; these webinars included,
 - Virtual Safety Town Hall Meetings, Wildfire Safety Webinars, and Enhanced Powerline Safety Settings Webinars
- Five presentations/demonstrations to partners (December 2021 through April 2022) including,
 - Vegetation management contractors, CalFire, cable companies, telecommunication providers with whom PG&E operates under joint pole agreements, and Frontier Communications

As indicated above, PG&E's ME&O efforts focused on residential customers rather than contractors or partners. PG&E employees learned of the pilot via a company email and were invited to test the app prior to the public launch. Our understanding from conversations with PG&E staff, as well as our interviews with stakeholders, is that reporting systems for field workers were already established. That said, field workers are also community members and could provide valuable word-of-mouth referrals by way of their own family, friends, and neighbors.

To date, ME&O initiatives have focused on marketing PG&E Report It, as opposed to edifying customers on how to properly use it. We expect the need to promote the app will continue as PG&E upgrades it to accommodate more users. Since this type of app is new, we do not expect customers will look for it on an app store without becoming aware of its existence first. As the app's adoption curve matures, we expect messaging to shift from encouraging customers to download the app to reminding customers to use it. Additionally, we anticipate future campaigns to center on customer education: encouraging proper use, sharing of results, and thanking customers for their role in improving public safety.

Costs

We were not able to provide an apples-to-apples comparison of PG&E Report It to another app or even a similar offering from the utility, as PG&E does not have one.⁷

PG&E does, however, offer several regulatory-required programs to provide discounted utility rates to qualifying customers. The utility promotes residential energy efficiency and demand response

⁷ Prior to PG&E Report It, the utility offered an online payment app to its customers. That app was available beginning in 2011. While it was PG&E-branded, it was operated by a Canadian company (TIO Networks) headquartered in Vancouver. This company also operated payment kiosks located at several PG&E local offices. In 2017, within months of finalizing the TIO Networks acquisition, PayPal uncovered evidence of unauthorized access to TIO's network, including locations that stored personal information of some of TIO's customers and customers of TIO billers. PayPal subsequently removed TIO's services from the marketplace, including the mobile app.

programs but pays residential customers with up-front incentives. We did consider PG&E’s CARE,⁸ FERA,⁹ and Medical Baseline Allowance program¹⁰ outreach, which all ask customers to perform a task (i.e., complete and submit a form) for a delayed benefit (i.e., a reduced electricity rate). The value proposition for PG&E Report It is similar: customers are asked to perform a task (i.e., download the app) to receive a later benefit (i.e., enhanced public safety).

In Table 2, we present a comparison of ME&O efforts for other customer-focused programs offered by PG&E. We note that the three programs we use for comparison purposes have costs recoverable by rates,¹¹ unlike the mobile app, which is currently paid for by PG&E shareholders.

Table 2. ME&O Costs Comparison

ME&O	2021	2022	2023
California Alternative Rates for Energy (CARE)	\$6,000,000	\$4,500,000	\$5,000,000
Family Electric Rate Assistance (FERA)	\$2,300,000	\$2,228,571	\$2,264,286
Medical Baseline	\$714,954	\$1,069,508	N/A
PG&E Report It	\$153,149	\$11,692	\$11,567

In 2021, PG&E spent \$128,224 to develop training materials for the app. We do not have cost data for the training itself (i.e., labor hours) as of the time of this report.

We determined PG&E’s outreach efforts were reasonably adequate to persuade customers to try use of the app. PG&E staff reported that downloads peaked after each email campaign—taken as a measure of 585,000 total emails sent, 50,990 net downloads represent a 9% uptake rate. In terms of active users, a total of 1,565 unique email addresses submitted 2,233 reports.

Mobile App Adoption

The number of submissions per email address ranged from one to 22, and most (77%) were one-time submissions from single users (Table 3). Another 15% of users provided two submissions. Overall, twice as many reports were valid rather than invalid (Table 4). Duplicates are included in the number of submissions. Note that because any user can submit either a valid or an invalid report, the total submissions in Table 3 are greater than those in Table 4.

⁸ California Alternate Rates for Energy Program (CARE) is a monthly discount of 20% or more on gas and electricity. Participants qualify through income guidelines or if enrolled in certain public assistance programs.

⁹ Family Electric Rate Assistance Program (FERA) is monthly discount of 18% on electricity only, for households with three or more people. Participants qualify through income guidelines.

¹⁰ The Medical Baseline Program, also known as Medical Baseline Allowance, is an assistance program for residential customers who depend on power for certain medical needs.

¹¹ CARE, FERA and Medical Baseline programs fund both gas and electric service, whereas PG&E Report It addresses safety issues concerning electric service assets, not gas.

Table 3. Number of Unique Email Addresses That Submitted a Report

Number of Submissions	Unique Email Addresses	% of Unique Emails
1	1205	77%
2	231	15%
3	64	4%
4	26	2%
5	16	1%
6	10	1%
7	3	0%
8	3	0%
9	1	0%
10	2	0%
11	1	0%
12	1	0%
22	1	15%
Total	1,565	100%

Table 4. Total Submissions by Submission Type

Number of Submissions	Valid	Invalid	Total Submissions
1	924	419	1,345
2	154	64	225
3	42	13	58
4	18	7	25
5	11	1	12
6	8	0	7
7	2	1	5
8	2	0	2
9	2	0	2
10	0	0	0
11	1	0	1
12	1	0	0
22		0	1
Total	1,178	505	2,233

Note: This table includes duplicate submissions.

User Type

We found the general public to be the primary user of PG&E Report It; this cohort generated **1,449 (89%)** of all **1,621 unique submissions**. Trees, vines, and power pole issues represent half of these submissions (50%). We suspect this is because these are the easiest for the general public to identify. The next most commonly reported issue was leaning or cracked power poles, at 20% (Table 5).

Table 5. Submissions, Categorized by Type of User

	Other Electrical	PG&E Equipment	Power Line	Power Pole	Tree or Vine	Total	%
General Public	96	128	202	283	740	1,449	89%
Utility Worker	13	17	13	25	35	103	6%
Tree Service Worker	1	2	1	3	26	33	2%
First Responder	2	1	1	10	13	27	2%
Road Crew Worker	-	1	1	4	3	9	1%
Total	112	149	218	325	817	1,621	100%
Percent	7%	9%	13%	20%	50%	100%	

3.2.2 ME&O Survey Findings

We developed and fielded two surveys to distinct customer groups:

- Our User Survey targeted PG&E customers as well as PG&E staff and vendors who had submitted at least one safety report (again, referred to as active users).
- Our ME&O Survey, discussed in this section, targeted PG&E customers who had received outreach collateral promoting the app¹² but had not yet submitted any safety reports. These PG&E customers were divided into two behavioral groups:
 - Passive users, who have downloaded the app but have not yet submitted a safety report, and
 - Non-users, who have not downloaded the app.

The two surveys (User and ME&O) combined yielded 378 respondents: 184 (49%) active users, 77 (20%) passive users, and 117 (31%) non-users. For brevity, all survey respondents in this section are referred to collectively as 'respondents.'

Customer Awareness and Exposure

All active users were able to recall the PG&E Report It app before taking the survey. Not surprisingly, 56% of passive users and non-users combined confirmed they had heard about the app unaided

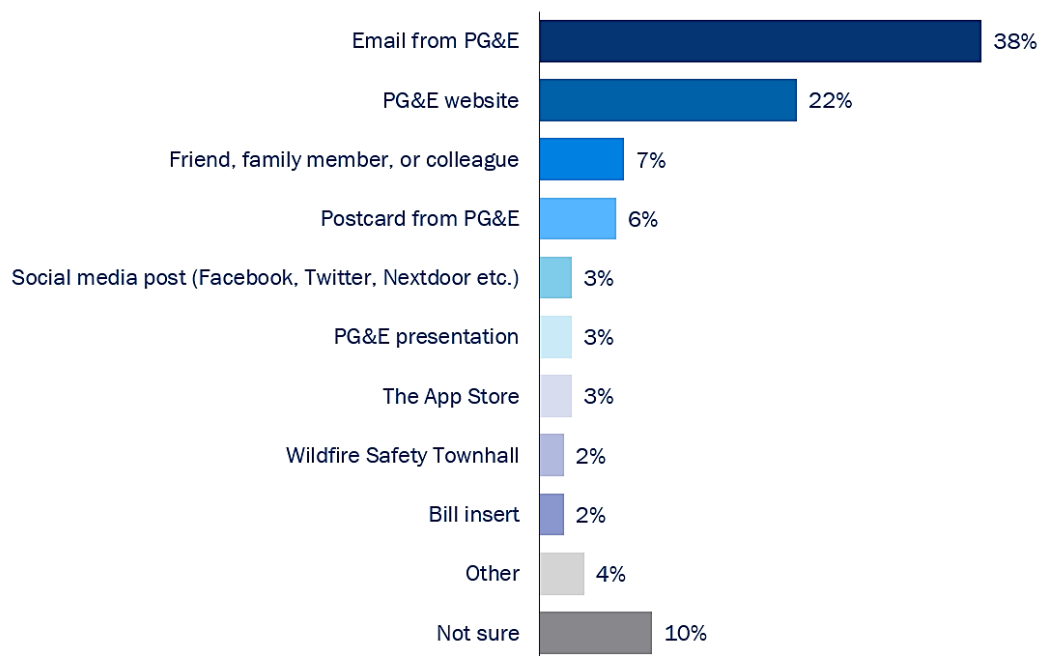
¹² Outreach collateral including emails, bill inserts and postcards.

(i.e., without our reminder of PG&E’s outreach email). After mentioning it, over three-quarters (78%) of respondents recalled PG&E’s email.

Across all respondents who recalled the app unaided, customers primarily first heard about PG&E Report It via the email they received from PG&E and the utility’s website. This was reflected in our staff interviews when we were told that email by far generated the greatest number of downloads.

In aggregate, however, 40% of respondents first learned about the app from another source. **This suggests PG&E customers seek information from an array of sources and a mixed-media approach may bolster ME&O efforts.**

Figure 1. How Customers First Heard about PG&E Report It (n=293)



Note: Base is active users (n=184) and passive users and non-users who recalled the app unaided (n=109).

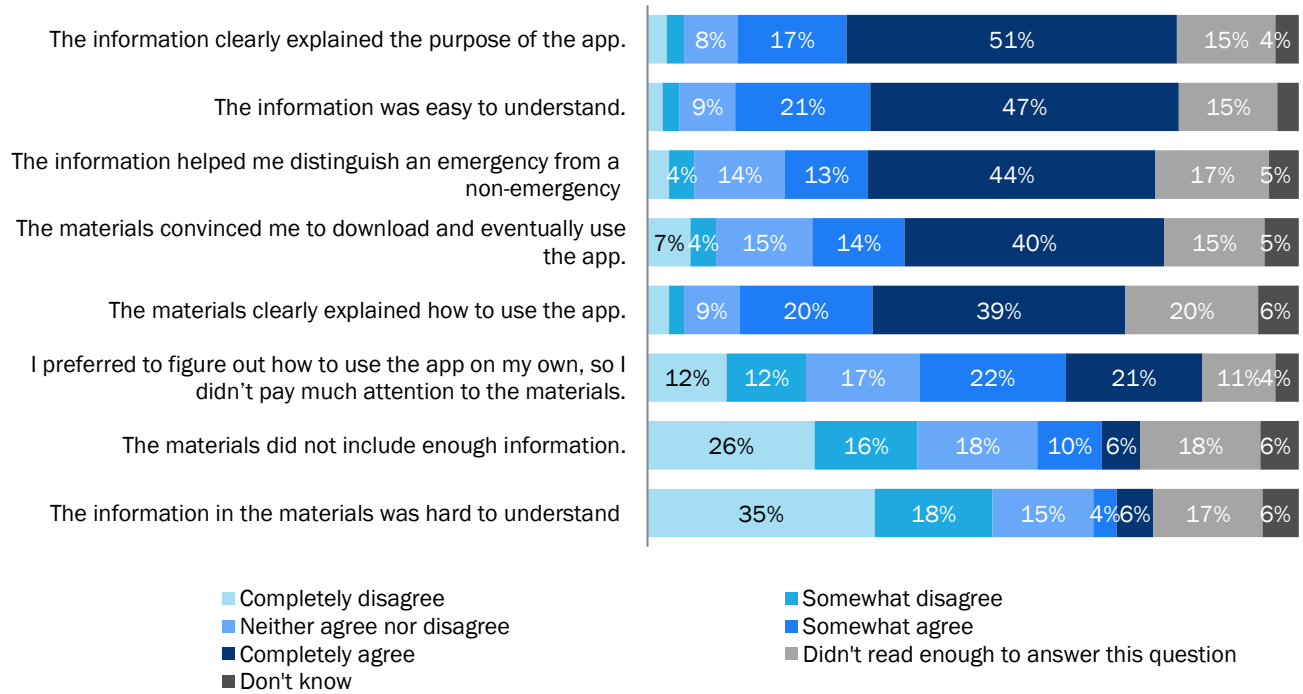
ME&O Efficacy among Respondents

Most customers who first learned about PG&E Report It through PG&E materials indicated the information they received was easy to understand and clearly explained the purpose of the app.

Figure 2 shows that over half of all respondents “somewhat” or “completely” agreed the ME&O materials,

- helped them distinguish an emergency from a non-emergency,
- clearly explained how to use the app, and
- convinced them to download and eventually use the app.

Figure 2. Customer Feedback on PG&E's ME&O Materials (n=304)

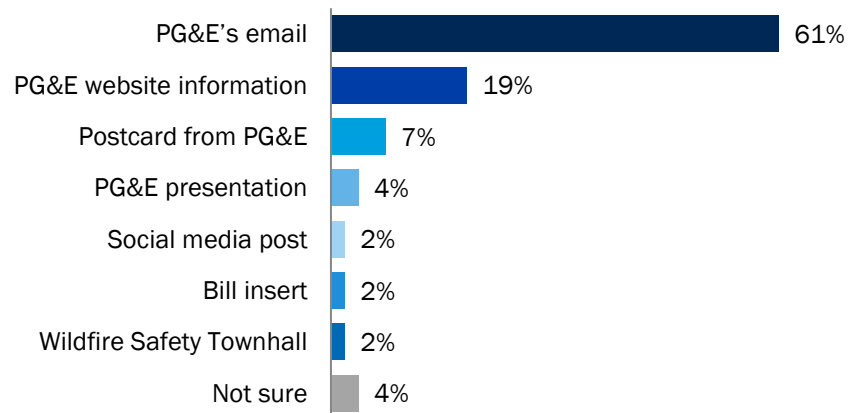


Note: Responses exclude customers who reported first hearing about PG&E Report It through a source not initiated by PG&E, including a "friend, family member, or colleague," "the App Store," "other," and those who were not sure how they first heard about it. Percentages lower than 4% are not displayed in the figure.

Impact of ME&O on Passive Users

The email from PG&E was the most effective marketing tactic for motivating passive users to download PG&E Report It. Among passive users who heard about PG&E Report It from a PG&E source, 54 (or 77%) said PG&E's marketing materials helped persuade them to do so. Further, more than half of this group indicated the email was the most influential factor (Figure 3).

Figure 3. Most Influential Marketing Materials Among Passive Users (n=54)



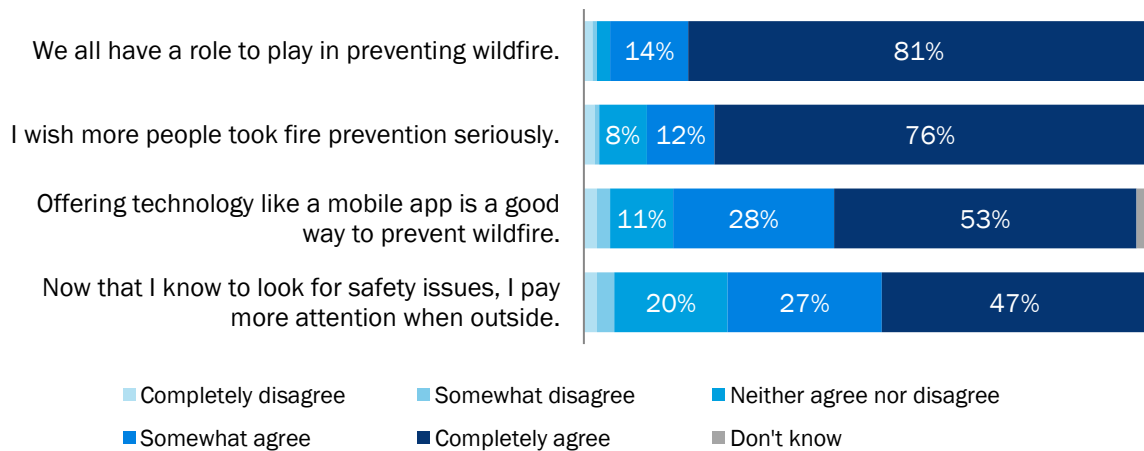
Note: Responses among passive users who reported that they “somewhat” or “completely” agreed the materials they received from PG&E convinced them to download and eventually use the app.

This indicates email is an effective means of customer communication, and the website is also important. In comparison, the bill insert did not resonate significantly. Additionally, we found more than two-thirds (67%) of passive users and non-users combined indicated they had received enough information about the app.

User Motivation to Download

As shown in Figure 4, most active and passive users shared strong beliefs regarding their role in wildfire prevention and agreed with the statements we presented to them in the ME&O survey.

Figure 4. User Sentiment around Preventing Wildfire and the Use of the App (n=261)



Note: Responses among active and passive users.

Notably, most active and passive users “somewhat” or “completely” agreed with the following statements:

- We all have a role to play in preventing wildfire (95%).
- I wish more people took wildfire prevention more seriously (88%).
- Offering technology like the mobile app is a good way to prevent wildfire (81%).
- Now that I know to look for safety issues, I pay more attention when outside (74%) (Figure 4).

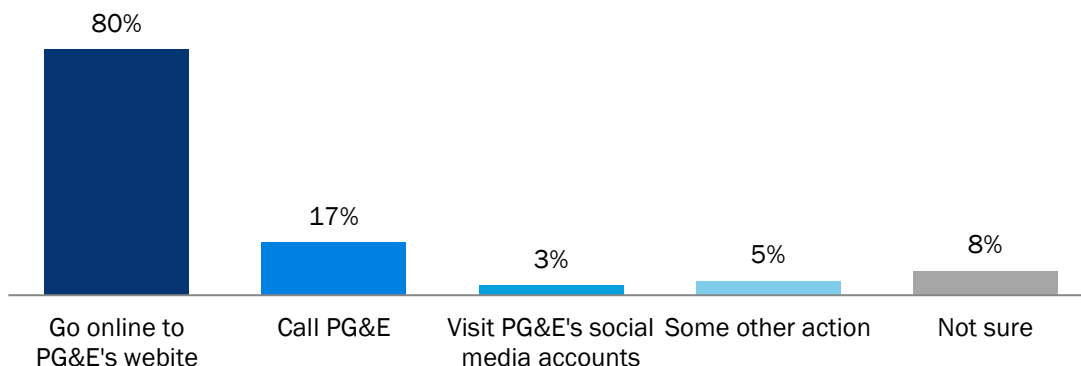
We wish to emphasize these statements because the message, as well as the medium, is critical to effective ME&O campaigns. It is not enough to receive an email: the subject line must be compelling for a recipient to open it, and the email’s text must communicate a strong value proposition to convince the recipient to act.

That said, pilot participants tend to be more engaged at the outset and these users are clearly interested in wildfire prevention. As PG&E expands ME&O promoting the app across its service territory, it should study how the app attracts users who are already engaged and how it encourages customer engagement.

Respondents Who Needed More Information

Survey respondents who needed more information before downloading the app want PG&E to communicate with them via email, yet on their own accord, they tend to make use of PG&E’s website (Figure 5). Notably, PG&E staff indicated their email campaigns far outperformed direct mail efforts (i.e., the bill insert and postcard) in generating app downloads. PG&E’s website—another digital medium—is also important to customers when they need more information. This has implications for a future web-based app (in addition to or instead of the current one, which is a native app and therefore available for download from app stores), which PG&E intends to consider.

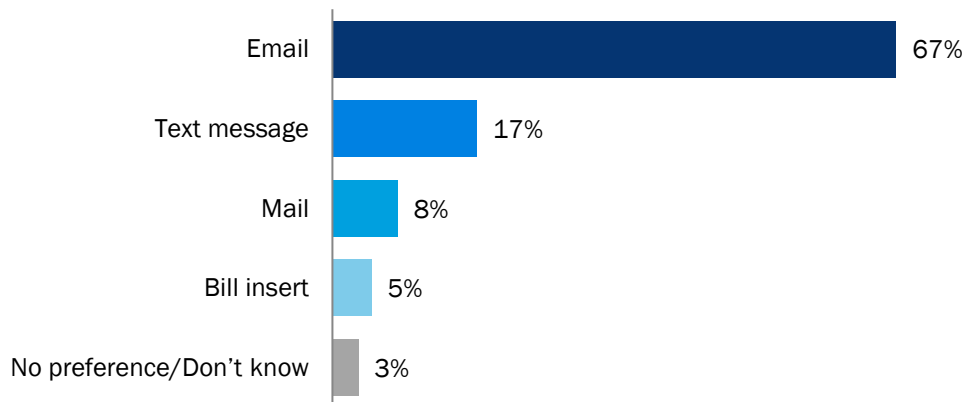
Figure 5. Customers’ Preferred Source of Additional Information about the App (n=64)



Note: Multiple responses allowed. Responses among passive users and non-users who felt they had not received enough information about the app.

A large majority (80%) of passive users and non-users who feel they *have not* received enough information about the app said they would go online to PG&E's website to get additional information about it. As Figure 6 shows, a smaller proportion of customers said they would call PG&E (17%) and a few customers said they would check PG&E's social media accounts (3%).

Figure 6. Customers' Preferred Method for Receiving Information about the App (n=64)



Note: Responses among those passive users and non-users who felt they had not received enough information about the app.

When asked about ways to improve the materials they received about the app, most (80%) passive users and non-users did not have anything to add or were happy with the materials received so far. Several respondents suggested the use of more succinct messages with clearer descriptions, infographics, and real-life examples to make the information easier to understand (13 mentions). Additionally, a few respondents suggested PG&E slightly increase the frequency of reminders to download and use the app (9 mentions) or have the link to download the app sent to them via email or text (4 mentions).

Only one survey respondent suggested that materials be made available in different languages (e.g., Spanish). Conversation with PG&E staff indicates customer use of wildfire informational materials that are produced in other languages is limited. As PG&E further promotes the app across its service territory, we think testing ME&O collateral produced in commonly spoken languages will be worthwhile.

Barriers to Downloading

During our interviews with PG&E staff in August 2022, respondents expressed concerns regarding the limited usage of PG&E Report It to date, relative to the number of customers who received promotional content. The staff hypothesized several potential barriers to using PG&E Report It:

- Disinterest in downloading another app (e.g., not enough space on phone, customer does not want to go through steps to access)
- Reluctance to use an app (e.g., dislike of apps generally or lack of familiarity)
- Lack of safety concerns to report

- Distrust of PG&E

Further, PG&E staff mentioned it had been more difficult to recruit users through traditional channel marketing (e.g., mail, TV) versus digital channels (e.g., email, website). This is because traditional media uses zip codes for audience segmentation and targeting, whereas the borders of HFTD Tiers are not defined by zip codes.

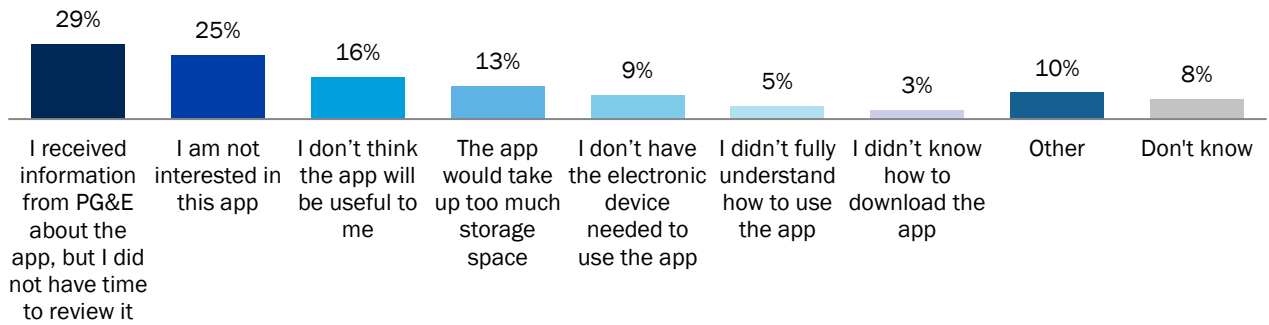
One staff member shared that customers tend to use their phone to access the PG&E website directly, rather than using an app. **Approximately 6% of customers used the former, discontinued mobile app previously deployed by PG&E** (for viewing and paying bills). As a result, the utility would have preferred to offer PG&E Report It as a web app (available through the PG&E website)¹³ to preclude the need for customers to perform additional steps (i.e., search for and download the app from their phone's app store). Two survey respondents explicitly stated they would prefer a website version.

Note that we interviewed core team members responsible for the development, promotion, and maintenance of the app. While we recorded our interviews for reporting accuracy, we ensured the confidentiality of these recordings, and staff understood their remarks would not be attributed to them individually.

Overall, the reasons non-users have not downloaded the app vary, with “not having had time to review the information they received” and “lack of interest” being the most common. When asked why they had not downloaded PG&E Report It, about one-quarter of non-users said they did not have time to review the information they received (29%) or were not interested in the app (25%). A few customers (16%) indicated they did not think the app would be useful, while others (13%) believed the app would consume too much of their phones' memory (Figure 7).

¹³ PG&E was directed by the CPUC to develop a native app (i.e., one that is available to download from Android and iPhone app stores). While PG&E still retained the option to also create a web-based app, the utility chose to wait and learn from its experience with the native one. The utility will consider developing a web-based app in the future and make that determination based on (among other factors) customer preference and maintenance costs.

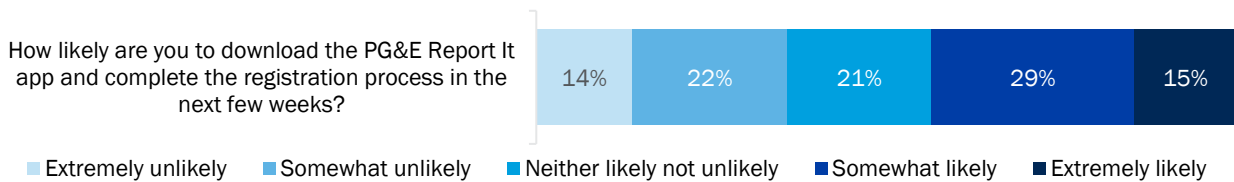
Figure 7. Non-users' Reasons for Having Not Downloaded PG&E Report It (n=117)



Note: Multiple responses allowed. Responses among non-users.

The likelihood to download and eventually use the app in the future is fairly spread across non-users, with about two-fifths (44%) of respondents saying they were “somewhat” or “very” likely to do so, and over one-third (36%) indicating they were “somewhat” or “very” unlikely to download it (Figure 8).

Figure 8. Non-users' Likelihood to Download and Register in PG&E Report It (n=117)



Note: Responses among non-users.

During the timeframe we evaluated (July 28, 2021, through February 10, 2023), PG&E Report It had 50,990 net downloads across both iPhone and Android users.

3.3 Usability

3.3.1 Usability Testing and Monitoring

PG&E provided several items that informed our assessment of PG&E Report It’s usability. These consisted of third-party usability testing results, user in-app feedback, rollout and enhancement dates, user statistics (i.e., downloads, uninstalls), as well as a clickable prototype.

In addition to these datapoints, we incorporated findings from the PG&E staff interviews we conducted. We spoke with five staff members across a variety of positions and teams who supported PG&E Report It and an additional staff member whose work supported PG&E’s call center (with

regard to call center process flows). As such, perspectives and input varied due to each interviewee's experience.

App Development and Testing Process

When developing PG&E Report It, one of PG&E's primary considerations was to create a user-friendly platform and enhance the overall customer experience. PG&E staff we spoke with provided two examples of these efforts:

- PG&E provided guidance within the app to help users identify valid safety concerns versus invalid or emergency concerns.
- Customers can track the status of their safety reports using a direct link in PG&E Report It. This feature was added to increase customer engagement and satisfaction compared to reporting their safety concerns through the call center.

Prior to launching PG&E Report It, PG&E hired a third-party (AnswerLab) to conduct usability testing. Objectives of the usability testing included:

- Understanding user success at completing tasks within the app
- Determining the app's ease of use
- Assessing the user experience and task flow within the app
- Identifying missing or extraneous features

Results of the vendor's usability testing of the early beta version of PG&E's Report It yielded several recommendations and changes to improve the customer experience and app functionality:

- Add a clarifying note to onboarding screens explaining the app is not for reporting an outage and customers would need to call PG&E for that issue.
 - A clarifying note about reporting outages was added to the beginning of the submission flow.
- Eliminate the title (i.e., description) prompt for uploaded photos (or make optional) and consider having one description field per report versus requiring one per picture.
 - Description made optional.
- Create a notification or badge to remind those using the report offline to go back into the app once their cell service is restored to submit their report.
 - Recommendation implemented.
- Include a note in onboarding screen about the need for capturing photos/video to inform users that this is a key part of the information gathering process, and necessary to report a concern.
 - Recommendation implemented.

According to PG&E staff, the utility confirmed PG&E had made two of the above programming enhancements prior to launching PG&E Report It.

User Experience Monitoring

Since launching PG&E Report It, the customer feedback shared upon submitting safety reports has become the primary source of usability data. In addition, in-app customer feedback provided through app stores and completion rates based on pages visited have helped staff identify potential issues.

App users who attempt to submit a safety report and are unsuccessful are now able to provide in-app feedback as of the June 2022 app update. Staff also reviews the success rates of users as they move from one screen to the next; based on PG&E's assessment from August 1, 2021, through September 30, 2022, more than 54% of users who begin a submission make it to confirmation.

When user-submitted feedback on the app store indicates a user's experience is different than what PG&E would have expected, the PG&E support team attempts to contact them to better understand these technical issues.

The following section describes a few common user concerns we identified in our review of in-app feedback, along with additional staff-provided context (as available) and any programming enhancement PG&E has implemented to address each issue.

In-App Customer Feedback

- The number of characters allowed for initial description is too limited.
- Staff indicated safety reports warranted greater description than was possible to provide in the original space allotted.¹⁴

Reporting location

- PG&E staff informed us users turn off their location data as a security precaution, hindering PG&E's ability to use the app's geolocation tracking to pinpoint the safety issue being reported. PG&E is then reliant upon the user-entered address (of the safety issue's location), which is not always accurate.
- Staff shared that PG&E pole lines have numerical tags on them, and if visible in a submission photo, these tags are extremely helpful for the triage team to determine the exact location of the reported safety concern. Staff confirmed this information is also provided in the PG&E Report It user instructions.¹⁵

Uploading Photos

- One user reported that PG&E Report It crashed in many instances when the user uploaded a photo (or more than one) from their phone library.

¹⁴ Character limit increased for report details section. (August 2022)

¹⁵ Redesigned photo upload to improve location accuracy, such that triage team can pull GPS information from photo if needed. Additionally, updates to user interface now allow users to provide additional photos for triage team to determine necessary details of safety report. (June 2022)

- Staff noted this issue was most prominent among Android phone users. Due to the wide range of Android phone versions and screen sizes, this operating system (OS) is difficult to accommodate within PG&E Report It's programming. Analytics provided by PG&E staff showed fewer than 3% of overall app sessions included a crash.¹⁶
- PG&E staff confirmed many popular versions of Android devices were tested prior to launch, but due to the wide variety of models and OS versions, some customers may be using models or OS systems that were not tested. Similar reasoning was applied to iPhone users with older versions or iOS systems who also experienced issues.¹⁷

Registration Wait Time

- Some users downloaded the app and attempted to submit a safety report using an email address different than the one on file with PG&E. Users who were not sent an email promoting the app (i.e., customers residing in HFTDs Tier 2 and Tier 3 who had previously shared their email address with PG&E) must 'register' in the app by sharing their name and email address. These users were subsequently subject to a waiting period of up to one week.¹⁸
- Staff interviewees confirmed a further update was planned to automate this verification process and approve users when they register for PG&E Report It.

3.3.2 User Survey Findings

Below are key survey findings related to app usability. PG&E customers who download PG&E Report It can use it 'passively'— by simply consulting the safety reports around them—or 'actively'—by submitting a safety report. As such, our analysis drew findings from 261 respondents across two distinct survey groups:

- Seventy-seven respondents from the ME&O Survey who indicated they downloaded the app but had not submitted a safety report; referred to as 'passive users' in this section.
- All 184 respondents from our App User survey who had each submitted at least one safety report; referred to as 'active users' in this section.

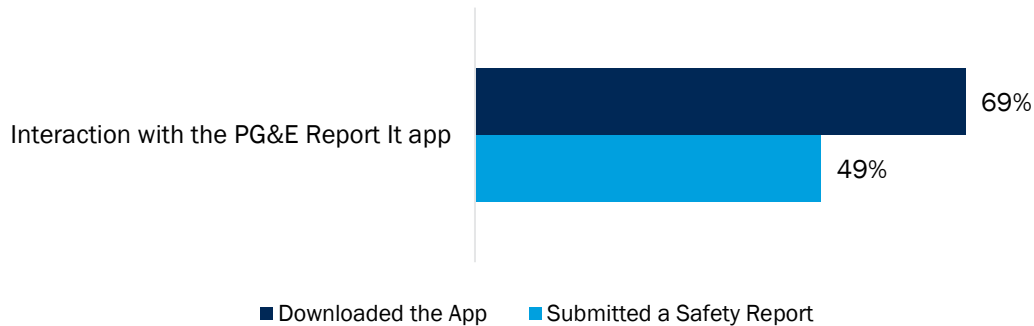
Most survey respondents who downloaded the app had also submitted a safety report. Overall, over two-thirds (69%) of survey respondents confirmed having downloaded PG&E Report It and nearly half (49%) of survey respondents had submitted a safety report through the app at the time of the survey (Figure 9).

¹⁶ At the time of this report, PG&E staff stated they would continue to look at ways to improve the mobile app experience, including options for standardizing image sizes to reduce app crashes.

¹⁷ Redesigned photo upload to allow users to provide multiple photos more easily when submitting a safety report. (June 2022)

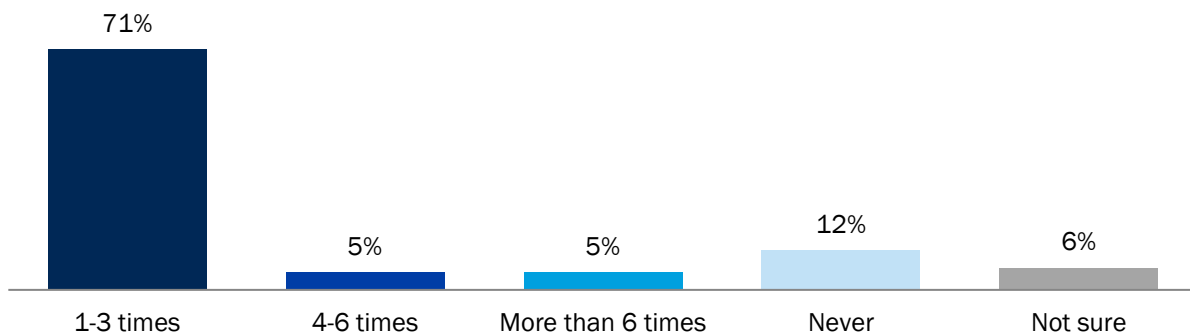
¹⁸ The wait time was subsequently shortened to 24 hours. (November 2022)

Figure 9. Customers' Interaction with PG&E Report It (n=378)



Most passive users have viewed the app at least once. More than two-thirds of passive users indicated they had opened the app one to three times since they downloaded it (Figure 10), suggesting customers use the app to look at safety reports submitted in their communities by other users.

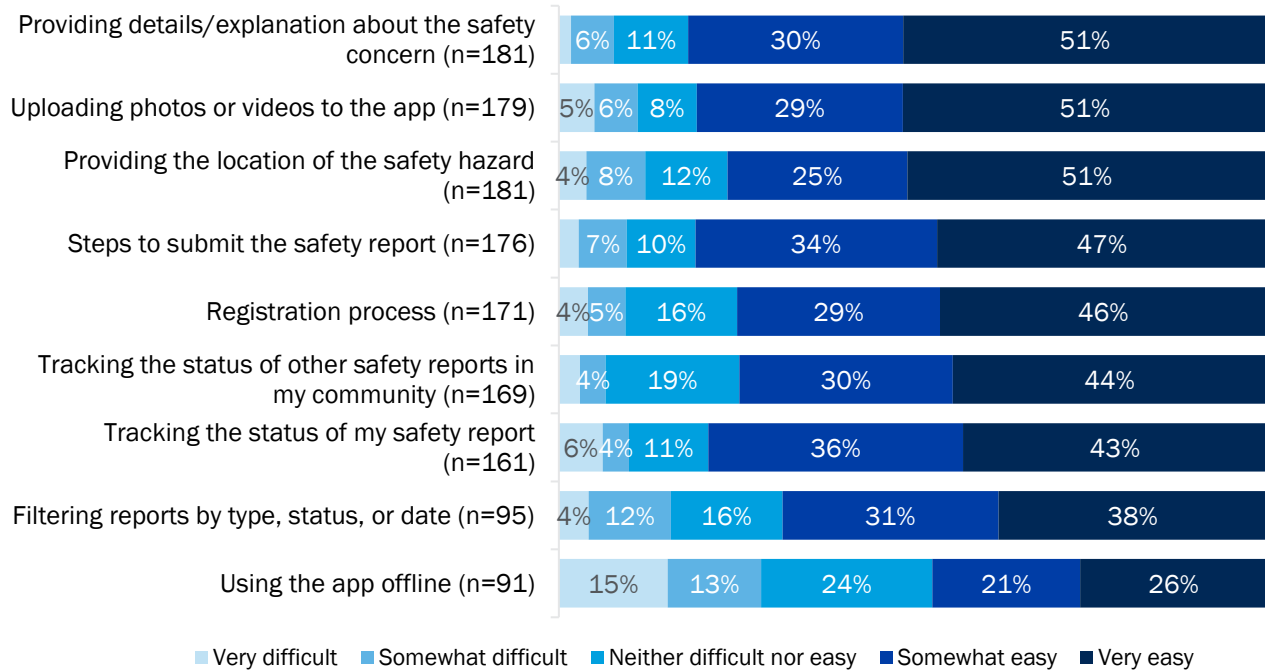
Figure 10. How Frequently Passive Users Open PG&E Report It (n=77)



Note: Responses among passive users.

Most active and passive users reported that the app features they interacted with were easy to use. Across most app features, at least two-thirds of applicable respondents found them “somewhat” or “very easy” to use (Figure 11). There was one key exception, however. Fewer than half (47%) of applicable respondents found it easy to use the app offline. Staff believe users may think they are using offline mode when they are not; this may warrant further exploration of the customer journey.

Figure 11. Usability of PG&E Report It Features

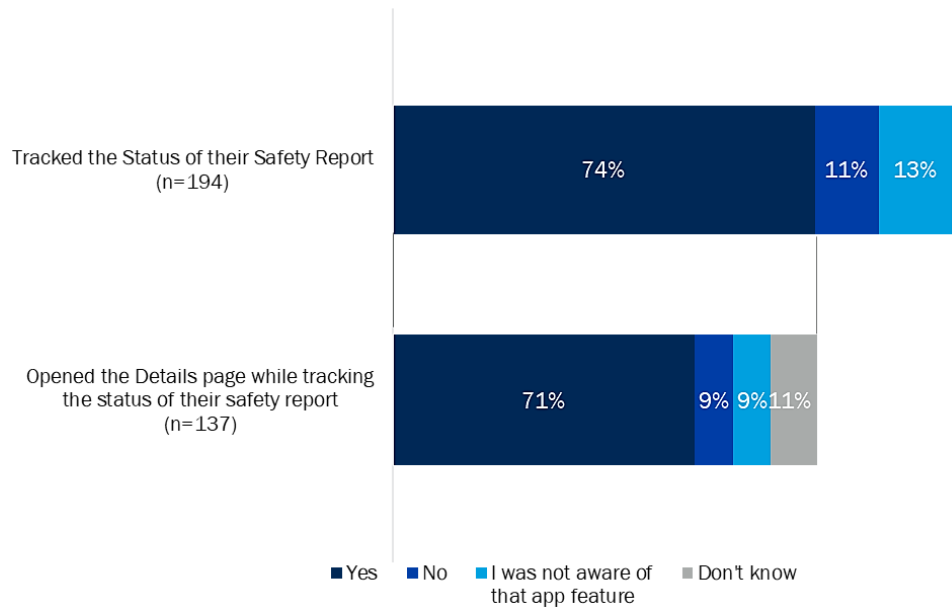


Note: Responses among active and passive users. Base varies because we only asked passive users about certain features. We also exclude non-applicable responses where customers had not used the specific feature. Percentages lower than 4% are not displayed in the figure.

Submittal Tracking Feature

Most active users have taken advantage of the ability to track the status of their safety report and reported that the tracking features were useful. PG&E Report It gives customers the opportunity to see the status of their safety report while it is being processed and addressed by PG&E. Among active users, about three-quarters (74%) stated they tracked the status of their safety report (Figure 12). Of them, most (71%) consulted the ‘Details’ page in the app, which includes the photos associated with the safety report, submittal date, when it was last updated, a case ID, and notes from PG&E, among other useful information.

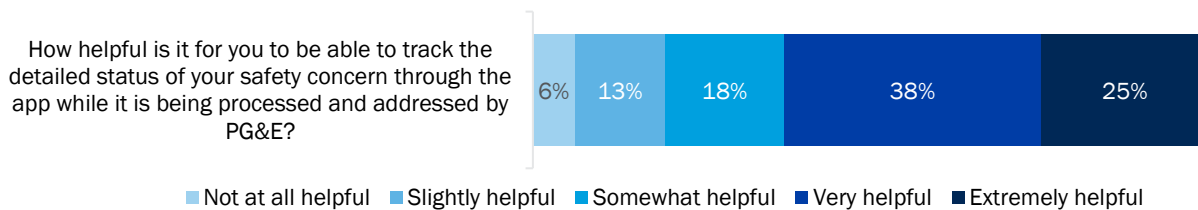
Figure 12. Active User Tracking of Safety Reports



Note: Responses among active users.

When asked how helpful the ‘Details’ page in the app was in tracking the status of their safety report, about two-thirds (63%) of those customers who had consulted it indicated it was “very” or “extremely” helpful (Figure 13).

Figure 13. Helpfulness of Safety Report Tracking Features (n=97)



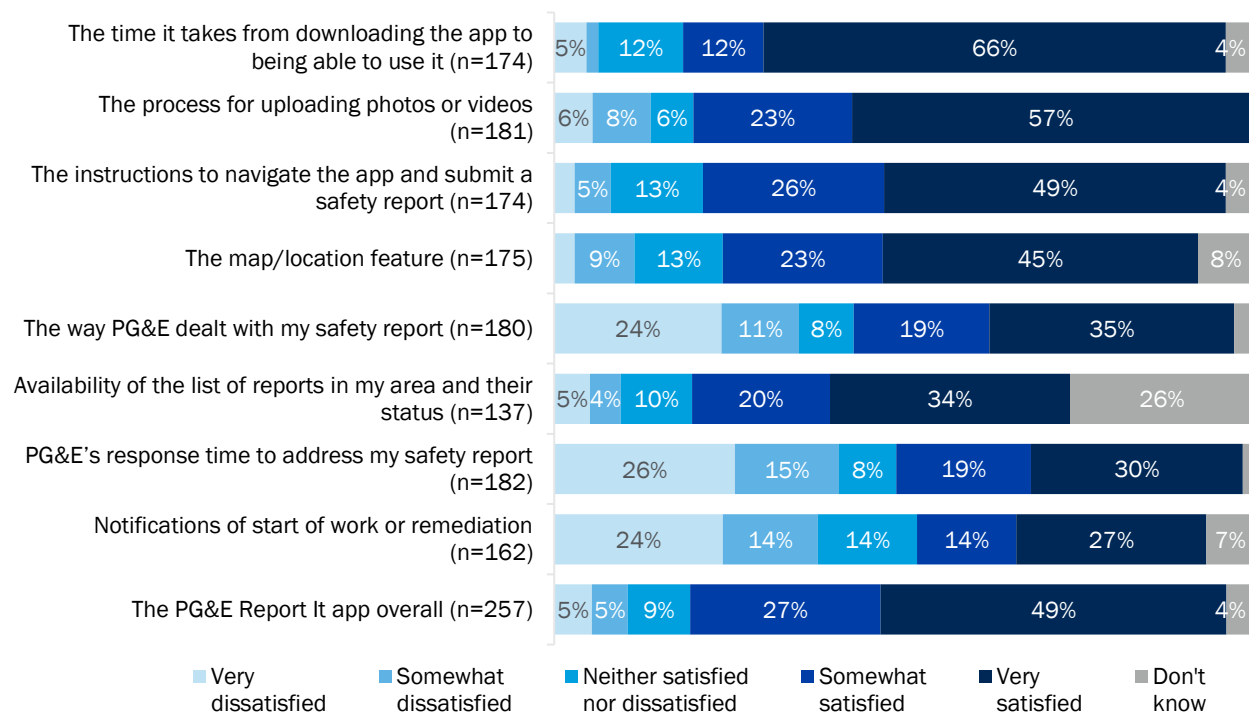
Note: Analysis includes active users who confirmed they used the tracking feature’s Details page.

High Customer Satisfaction

Respondent satisfaction with PG&E Report It is high overall. About half (49%) of respondents (both active and passive users) indicated they were “very” satisfied, and about one-quarter (27%) were “somewhat” satisfied (Figure 14). Respondents were most satisfied with the time it takes to download and begin using the app, the process of uploading photos and videos, the instructions to navigate the app and submit a safety report, and the map/location feature in the app. PG&E updated its photo uploading and geo-location features in June 2022, which may explain overall satisfaction expressed in the User Survey versus complaints in the in-app feedback.

When customers are dissatisfied, they report having experienced long wait times for a response to or resolution of the safety issue, insufficient or no notifications of changes to the safety report, and safety reports not being resolved. Additional pain points were the way PG&E dealt with their safety report, the notifications of start of work or remediation, and PG&E's time to respond to their safety report.

Figure 14. Customer Satisfaction with PG&E Report It



Note: The option "PG&E Report It overall" was asked among active and passive users. All other options were only asked active users. Figure excludes non-applicable responses. Percentages lower than 4% are not displayed in the figure.

Of the PG&E customers who were satisfied with the app overall, the most commonly mentioned reasons were the ease of reporting a safety concern through the app compared to reporting it via phone call (43 mentions); faster response from PG&E compared to when they report the safety concern via phone call (37 mentions); and seeing safety issues getting resolved through the app (33 mentions).

"I submitted about five different reports and the information got to where it needed to go. I received and looked for updates, and PG&E completed the jobs... it is a very helpful app."

Customers also mentioned PG&E Report It's unique features, such as being able to review detailed notes about a report's status by PG&E after submittal (8 mentions), the ability to attach photos to safety reports (6 mentions), and being able to identify any safety concerns that exist in different locations using the map feature (3 mentions).

“It allowed me to report the details of my concerns easily and track the status of the report to resolution.”

As for PG&E customers who expressed dissatisfaction with the app, they mentioned having reported issues that were not resolved (26 mentions); a lack of notice or explanation from PG&E about changes to their submitted safety reports, especially when reports were closed or the reported issue did not present a safety concern after all (21 mentions); the fact that previously submitted safety reports were often closed by PG&E and removed from the app’s records (7 mentions), making it impossible for customers to trace the safety report in question; or that once a safety report was closed, they were unable to access the Details page for that report after several months (1 mention).

“No action was ever taken by PG&E in acknowledging or remediating the report I sent via the app. I was required to follow up with multiple phone calls, nobody I talked to appeared to know that I had submitted the issue via the app.”

Additional customer pain points concerned pinpointing their location and confusion regarding photo requirements. Some customers mentioned inaccurate geolocations provided through the app (8 mentions); not being able to edit the location information in their safety reports as needed to provide accurate information to PG&E (2 mentions); and not being able to submit a report without the required number of photos (5 mentions). This is also reflected in the in-app usability feedback addressed earlier in this report; as mentioned earlier, PG&E had updated the app in June 2022 to address these issues. At the time of this report, we have not researched the user submissions from these respondents.

“Enable more specific location information and to edit location information.”

Asked about their expectations of PG&E Report It, about one-third (36%) of active users said the app was exactly as they expected. About one-quarter (24%) said they did not have any expectations, while a similar proportion (23%) indicated the app exceeded their expectations (Figure 15).

Figure 15. Whether PG&E Report It Met Expectations (n=184)



Note: Responses among active users.

Customers liked how easy it was to use the app to navigate as well as to report and identify safety issues (36 mentions). Some customers stated uploading photos made it easier to report hazards (9 mentions), and others praised the geolocation mapping feature as a valuable tool that helped increase their general awareness of safety concerns around them (4 mentions). Customers also noted PG&E followed up promptly with their reported issue(s) with via email or message when using the app (22 mentions) and how quickly PG&E resolved the issue in question (19 mentions).

“Calling is a process of being on hold, giving descriptions, etc. The app took the pressure off of me, my time.”

“Easy process flow and good prompts made it easy to submit my safety concern.”

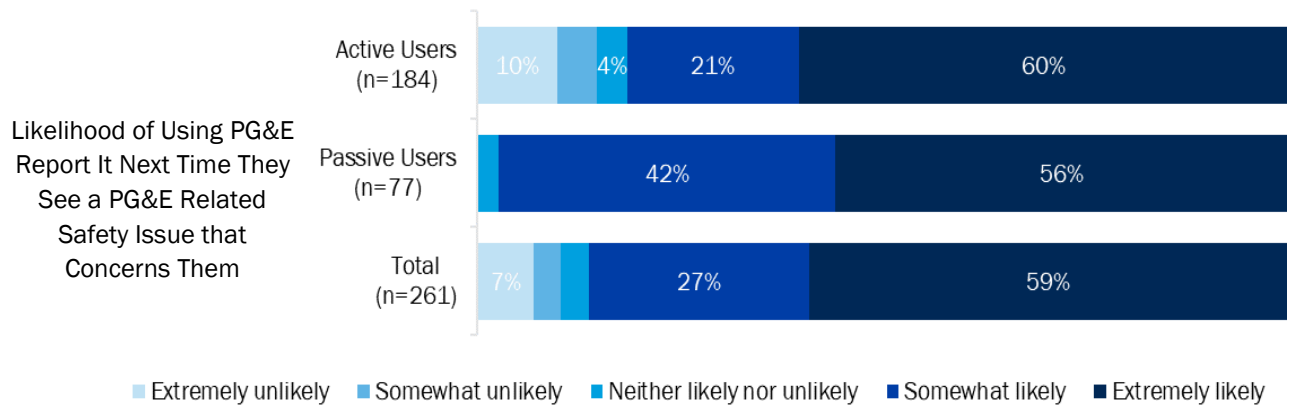
On the other hand, feedback from customers for whom the app did not meet expectations was in line with previously stated reasons for dissatisfaction. Several customers complained that their safety reports were only partially resolved or not resolved at all (22 mentions), as well as receiving slow or no response from PG&E after they submitted their safety report (18 mentions). Some customers indicated waiting several months to receive a response from PG&E about their safety reports. Additionally, customers mentioned certain requirements for submitting a safety report were unnecessary or difficult to complete, such as the number of photos needed (5 mentions) and pole number fields (2 mentions).

“I expected that if I reported equipment that needed replacement, PG&E would replace it. It took 7 months, but PG&E did fix the problem.”

Overall, most (86%) active and passive users indicated they were “extremely” or “somewhat” likely to use the app the next time they see a PG&E-related issue that concerns them (see Figure 16); note

passive users are statistically more likely to indicate being ‘somewhat’ likely to do so, compared to active users.

Figure 16. Likelihood of Using PG&E Report It in the Future (n=261)



Note: Responses among active and passive users. Percentages lower than 4% are not displayed in the figure.

App Improvement

Active users provided feedback on ways to improve the functionality of the app and their experience. **Most recommendations were related to more streamlined and open communication with PG&E about the resolution of the safety reports submitted, making the photo and video uploading process easier and increasing advertisement of the app to spread its use.**

In line with previous feedback on satisfaction with PG&E Report It, active users provided potential resolutions to their concerns as well as other suggestions to improve the app and customer experience of it. We have aggregated these recommendations and present them by theme below:

PG&E response and customer engagement (38 mentions) recommendations included,

- increasing the efficiency of responses for reported safety issues, especially providing a realistic timeline in which the issue will be resolved;
- increasing the number of notifications regarding any changes made to the status of their report(s) and offering a more detailed explanation to customers when the reported issues do not qualify as a safety hazard;
- allowing for customers to comment following up a report resolution, even if the report is closed; and
- providing a phone number people can call to if they need help with the app and/or to follow up about the reported issue.

Photo, video, and location app features (36 mentions) improvement suggestions included,

- being able to add saved photos away from the location of the safety hazard, especially due to difficulty uploading them without a Wi-Fi connection;
- less stringent picture uploading requirements;
- allowing for larger file size to upload videos; and
- allowing for more flexibility when providing the location of the issue, such as
 - being able to submit the report away from the location of the issue,
 - enabling more entries or ways (e.g., drop pin) to provide a location, including comments, so customers can describe a location rather than necessarily having to provide street addresses, and
 - allowing to edit the location in the report.

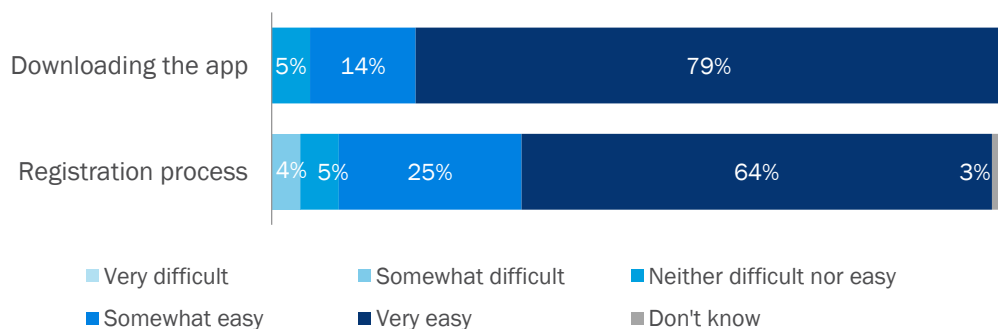
Overarching suggestions (12 mentions) to improve the app included,

- keeping a user history section in the app where customers could see all their submitted records (including closed records),
- advertising the app through multiple marketing strategies to increase awareness and usage, and
- expanding reportable issues to include gas-related categories.

Downloading and registration

According to passive users, both downloading PG&E Report It and the registration process were very easy. Most (93%) passive users indicated downloading the app was “somewhat” or “very” easy. The majority also (89%) said the same about the registration process (Figure 17). Only three respondents experienced difficulty with the registration process, which they reported were due to an issue with their PG&E account (1 mention), not recalling the email address linked to their PG&E account (1 mention), or the system not recognizing their email address (1 mention). This indicates the logistics around downloading and registering in the app are not reasons why non-users have not interacted with PG&E Report It.

Figure 17. PG&E Report It Downloading and Registration Processes (n=77)



Note: Responses among passive users.

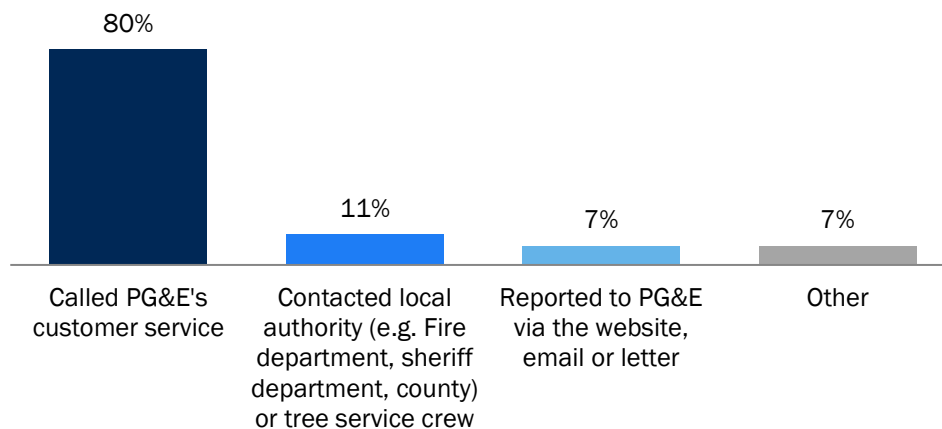
Alternative Pathways for Reporting Hazard Reporting

Overall, active users are split between those who had already been very engaged when it comes to reporting potential safety hazards, and those for whom the app had some influence in their engagement.

About two-fifths (39%) of active users stated they had communicated a safety concern before using PG&E Report It. We could assume that these are likely customers with some general awareness and level of engagement when it comes to reporting potential safety hazards around them. Most active users (60%) had not communicated any safety concerns before using PG&E Report It, however, showing that **the app was successful in “recruiting” new customers and engaging them in being vigilant around safety hazards when they might not have been otherwise.**

Among the first group, the most common way to communicate a safety concern—before using the app—was calling PG&E’s call center, with over three-quarters (80%) of app users indicating as such (Figure 18). A smaller proportion (11%) said they contacted some sort of local authority (e.g., fire department, sheriff’s department, the county, or a tree service crew) to report a safety hazard.

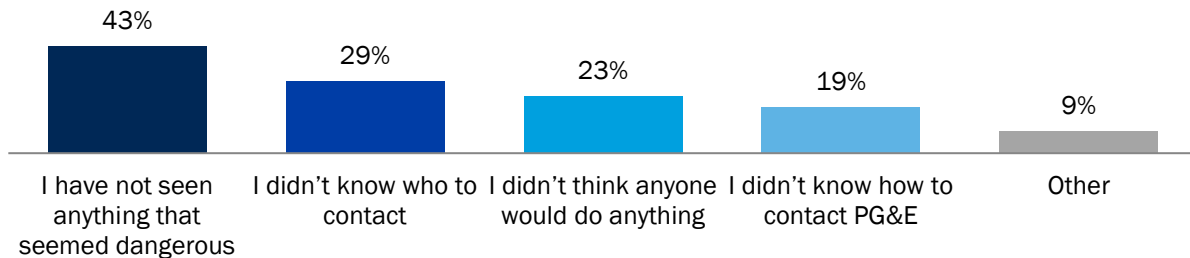
Figure 18. Ways Active Users Reported Safety Concerns Prior to Utilizing the Mobile App (n=71)



Note: Multiple responses allowed. Responses among active users who confirmed that they had communicated a safety concern about a potential PG&E related hazard before learning about the app.

Among the second group of app users—those who had not communicated a safety concern before using the app—the most common reason mentioned for not doing so was having not previously seen anything that seemed dangerous. This may be indicative **of the app creating awareness about what constitutes a safety hazard, and that customers who use the app are now able to identify those potential issues more easily and look at their surroundings more critically.** Some customers also indicated they didn’t know who to contact, didn’t think anyone would do anything, or didn’t know how to contact PG&E (Figure 19).

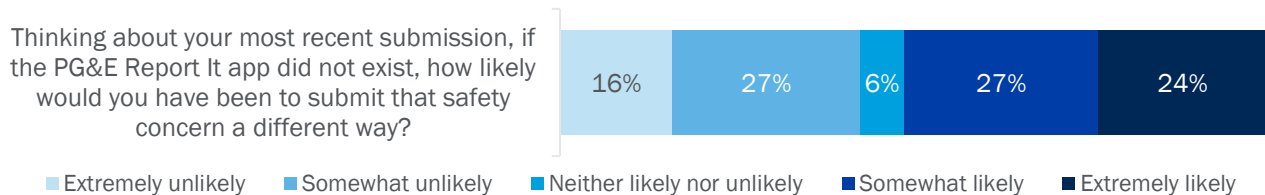
Figure 19. Reasons Active Users Hadn't Reported a Safety Concern Before Knowing about the App (n=113)



Note: Multiple responses allowed. Responses among active users who confirmed that they had not communicated a safety concern about a potential PG&E related hazard before learning about the app.

The likelihood of active users to submit a safety concern without the app, among those who had not communicated a safety concern before using the app, seemed to be split. On one hand, about half (51%) indicated they would have been “somewhat” or “very” likely to communicate their most recent safety concern without the app. On the other hand, about two-fifths (43%) indicated they would have been “somewhat” or “extremely” unlikely to report their most recent safety concern if the app did not exist, demonstrating that the app had at least some influence in their engagement (Figure 20).

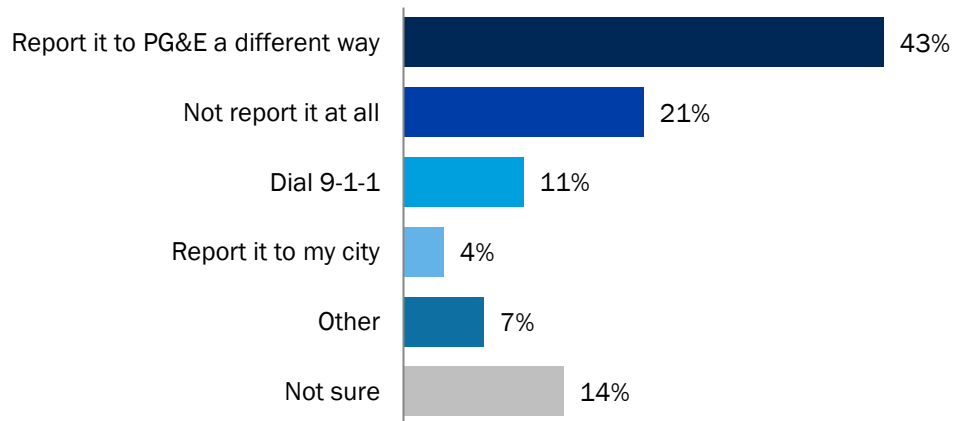
Figure 20. Active Users Likelihood to Submit a Safety Concern if the App Did Not Exist (n=113)



Note: Responses among active users who confirmed they had not communicated a safety concern about a potential PG&E-related hazard before learning about the app.

As previously mentioned, most (86%) active and passive users indicated they are likely to use the app next time they see a PG&E-related issue that concerns them (Figure 21). We asked the smaller group (14%) of customers who said they are unlikely to use the app in the future what other reporting avenues they will use to communicate a potential safety hazard. About two-fifths (43%) indicated that they will use PG&E Report It to communicate with PG&E a different way, while about one-fifth (21%) said that they will not use PG&E Report It at all. A smaller proportion of these customers (14%) indicated they do not know what they will do.

Figure 21. Alternative Reporting Avenues of Safety Hazards for PG&E Customers (n=28)



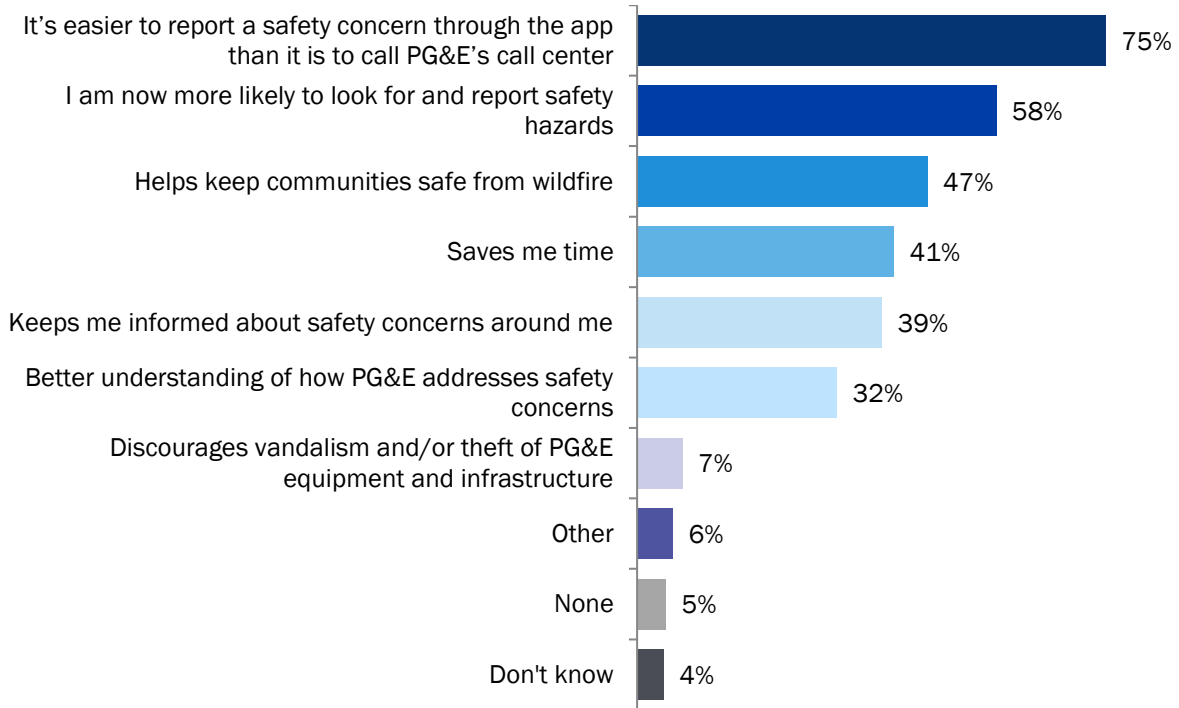
Note: Responses among active and passive users who indicated being “somewhat” or “extremely” unlikely to use PG&E Report It next time they see a PG&E-related safety issue that concerns them.

Additional App Benefits

Both active and passive users recognize the benefits of PG&E Report It. The most commonly reported benefits include the ease of reporting a safety concern in the app as opposed to an alternative reporting avenue, increased user awareness of and likelihood to identify potential safety hazards, and enabling users to actively participate in wildfire prevention to keep their communities safe.

When asked about the benefits of PG&E Report It, nearly all active and passive users (95%) mentioned at least one benefit. Three-quarters (75%) of customers indicated it is easier to report a safety concern through the app than it is to call PG&E’s call center. Over half (58%) said they are now more likely to look for or report a safety hazard, while a smaller proportion (47%) said the app helps to keep communities safe from wildfire. Other benefits included saving time (41%), staying informed about safety concerns around them (39%), and having a better understanding of how PG&E addresses safety concerns (32%) (Figure 22).

Figure 22. Benefits of PG&E Report It (n=261)

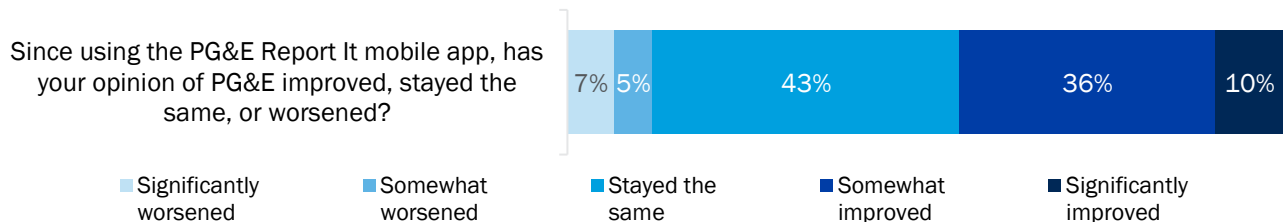


Note: Multiple responses allowed. Responses among active and passive users.

Perception of PG&E

PG&E Report It has had a significant positive impact on some respondents' opinions of PG&E. As Figure 23 shows, nearly half (46%) of respondents indicated their opinion of PG&E "somewhat" or "significantly" improved, while for two-fifths (43%) of respondents reported their opinion of PG&E stayed the same since using the app. Conversely, a few (12%) respondents stated their opinion of PG&E "somewhat" or "significantly" worsened.

Figure 23. Customer Perception of PG&E Since Using PG&E Report It (n=261)



Note: Responses among active and passive users.

3.4 In Depth Interviews

We interviewed 11 individuals who had submitted safety reports as a follow-up to the user survey. As shown in APPENDIX B, nine of 11 respondents were PG&E employees, and the remainder were

PG&E contractors. Nine had participated in our App User Survey. Respondents submitted between one and 15 safety reports through PG&E Report It, with their most recent safety report submitted between January 2022 and May 2022. For context, the median number of reports across all users was one and the maximum number was 22.

We spoke with professionals working in various roles, such as a land surveyor, attorney, and mapping technician. One interviewee was a mechanical engineer for PG&E's gas division. The two non-PG&E employees consisted of a line inspector and a flagger (i.e., someone who directs traffic around road work). These individuals had jobs in the field, in an office, or a combination of the two; all of them considered safety to be a part of their professional responsibility. All except for one interview participant submitted safety reports on their own time outside of work as opposed to while on the job. See APPENDIX A. for details.

The stakeholders we interviewed tended to have three different ways of reporting safety issues. Personnel directly responsible for reporting safety issues while on the job used their designated standard protocols, when available; one worker used PG&E Report It with his supervisor's permission. Four respondents we spoke with did not have a formal process for reporting safety concerns while on the job. Outside of their jobs, some stakeholders have used PG&E's toll-free phone number. Many respondents—both in their job (if not directly related to safety) and outside of their job—determined which individual at PG&E was responsible for the affected geographical area and contacted that person directly by emailing photos, making phone calls, and/or following up.

Stakeholders found that PG&E Report It is convenient and easy compared to other options they use to report safety concerns.

All 11 respondents enjoyed the convenience of submitting a safety concern with PG&E Report It, particularly when compared to other standard reporting protocols (or lack thereof) they use in their job and/or the PG&E call center. The remaining seven respondents' protocol for safety concerns involved informing their foreman, calling or emailing their supervisor (including description form and photos noted by one respondent), or notifying somebody they knew on a relevant PG&E field team who could inspect the issue (specific to PG&E employees). Two respondents compared the PG&E Report It submission process to their usual practice:

"[Before availability of the PG&E Report It] I'd have to figure out where [the issue] is, what line of business it would be, and then I would typically call a particular superintendent and say, "Hey, I've noticed this hazard." [Then]...I came back and then I emailed them the photograph. I also took a screenshot of the map of where it was located. It was really labor intensive compared to the PG&E Report It app."

"[Compared to other job protocols for reporting safety issues] Oh, it's night and day. If I was on the clock, I'd have to jot down some notes and location. I'll probably mark the location, jot some notes, take some pictures to attach, and then fill out the form. There's a shared [email] mailbox that forwards it to the different compliance departments, or I'd have to look up the specific one. It's a process."

Respondents noted many positive, unique features PG&E Report It provides beyond other available reporting methods, including:

- **Convenient and saves time:** There is no need to wait in a phone queue, especially when a user is in a remote area and has limited cellphone service. While in areas with no cellphone service, users can fill in details related to the safety report in the app, then quickly submit their completed report once they are back within range.
- **Photographic documentation:** PG&E Report It requires photos to supplement the user's issue description. Allowing users to submit a visual aid helps them more accurately depict the safety issue they are reporting than simply describing the problem in text alone would. Photos of safety concerns are recorded within the app and accessible.
- **Specific location features:** PG&E Report It provides the specific location of issue site, including latitude and longitude coordinates, rather than relying on only the user's ability to describe the site location.
- **Ability to see reports in real-time:** Users can see reports others are making in the community in real-time and check whether someone else has already submitted any issues they identify. This feature also promotes a sense of collective effort with others in the community, allowing users to see others taking action and reporting safety concerns. One respondent shared:

"It's nice that it has other concerns in the area so I can see someone else already addressed something. It's a community effort, it's more than just me. This keeps us from doubling efforts."

PG&E Report It empowers respondents to report issues and makes them feel confident PG&E will address them.

Three respondents shared that without PG&E Report It, they would not have reported their safety concerns at all. Notably, two of the three were unaware of the call center, even as PG&E employees. One respondent submitted a report on behalf of a family member who had previously contacted PG&E (through an unspecified mode, not PG&E Report It). The family member had not received a response from PG&E, whereas the issue was resolved after the respondent reported it using PG&E Report It. In our interview, this individual suggested that without PG&E Report It, there is no other reliable resource for reporting issues.

[Before availability of PG&E Report It] I probably wouldn't have done anything. The idea of doing it myself seemed overwhelming. I know my father-in-law tried to handle it himself before [unknown mode, not through app] and he didn't get anywhere. So where would I [go] with it?"

- In terms of accountability, PG&E assigns a unique case number to each submission that allows users to track the status of their safety concern. PG&E provides confirmation when they receive a report and sends follow-up communications with updates, such as when the case has closed

or if the triage team requires additional information. Once a plan is in place to address a safety issue, PG&E proactively provides the estimated date of the resolution, rather than requiring users to follow-up with PG&E for this information.

Stakeholders like having multiple options for reporting safety issues and are most likely to use PG&E Report It when reporting non-urgent concerns.

Six of the 11 interviewed respondents had previously contacted the call center to report a safety concern, and 9 respondents indicated they were aware of this resource. Interestingly, the two respondents who were unaware of the call center resource were both PG&E employees and had not previously known the process for customers to contact PG&E with issues. When considering all reporting options, including the call center, eight respondents said they were likely to use PG&E Report It to report safety concerns in all non-emergency or time sensitive cases. These respondents noted that under urgent circumstances, they would instead contact the call center and/or dial 9-1-1, depending on the level of urgency. Two of the three remaining respondents preferred to use PG&E Report It in all cases, and the final respondent reported they were unlikely to use the app at all moving forward as they favor telephone communication.

Stakeholders plan to use PG&E Report It in the future and have shared the resource with others in their community.

Ten of the 11 respondents said they plan to continue to use PG&E Report It to report future safety concerns they observe. PG&E staff we spoke with explained that, as an employee, many people come to them for help or advice about various utility-related concerns, including safety issues they see. This has enabled them to easily promote PG&E Report It to others and they are able to direct people to the app as a resource. Overall, ten respondents mentioned they had already recommended the app to friends, family, or others in their community. The remaining respondent reported they had not shared the app with anyone because they were unsure of its duration in the pilot stage.

The single respondent who does not plan to use the app in the future shared they had a great first experience with the app but were disappointed by the response and action taken with their subsequent submissions. They shared they had recommended the PG&E Report It to many members of their community but highlighted that after this experience they were embarrassed and felt their credibility had been compromised:

"I'm like, "Hey, everybody, there's something new. Look, it's an app. It's going to get to the right person now." I was excited. I was a salesperson for this, and now I'm being ignored. So, I look like I'm in cahoots with [PG&E] and I don't like that, so I'm not going to be promoting anything else. I got my name out there now. It's one thing where PG&E wants to make a fool of themselves, but don't make a fool out of me."

Despite stakeholder satisfaction with the PG&E Report It overall, some still highlight the value of speaking to a live human versus online communication.

Six respondents noted specific benefits associated with reporting a safety concern through the call center rather than by using the PG&E Report It. These benefits included more immediate inspection and resolution of the safety issue (three respondents), ease of use for people less savvy with technology (three respondents), and the ability to better convey the safety issue if the user is unfamiliar with or has trouble communicating necessary details (i.e., both user and call center representative are able to ask questions and clarify information) (one respondent).

Overall, stakeholders were highly pleased with PG&E Report It and their suggestions to improve it centered on increasing PG&E's responsiveness and the app's scope. See APPENDIX C. for detail.

3.5 App Tracking Analytics

This portion of our research focused on how customers have used PG&E Report It and is distinct from the initial usability testing PG&E conducted (via a different third-party vendor) prior to making the app publicly available. We sought to understand if they were using it as intended, if their report submissions alerted PG&E to previously unknown safety hazards, and if those hazards could result in wildfire.

We also wanted to understand what kinds of safety reports were most commonly 'invalid' (i.e., deemed not appropriate for the app). This is important because invalid reports include emergencies that should be reported to 9-1-1, and a high preponderance could imply PG&E Report It is undermining its own purpose to prevent catastrophe. Additionally, submissions that relate to either non-PG&E assets or PG&E's gas division are considered 'invalid;' this is important because staff time is spent reviewing submissions and responding to them.

We used data on user submissions beginning at PG&E Report It's launch on July 28, 2021, through February 10, 2023. In addition, we received data that characterized each submission according to its ignition risk.

3.5.1 User Engagement

Downloads and submissions

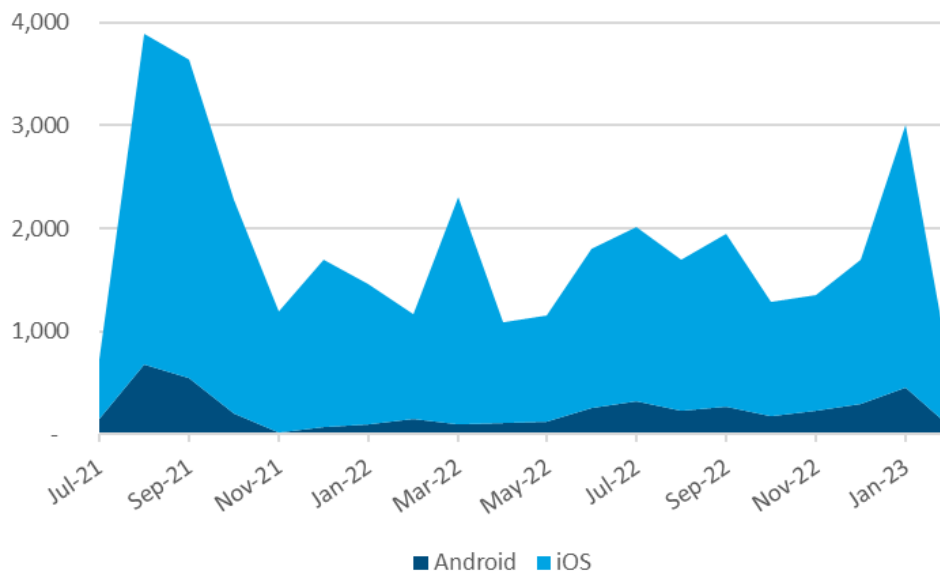
There were 50,990 net downloads during the period from July 2021 through February 2023. Net downloads are total downloads minus total uninstalls.

To date, net downloads from individuals average 1,800 per month. Figure 24 illustrates that net downloads have hovered between 1,000 and 2,000 month-to-month. In this portion of our research, we looked for trends to gauge PG&E Report It's customer engagement and possible effects of other variables such as ME&O campaigns and weather events.

We noted two exceptions to typical download volume: one in August and September 2021 when PG&E Report It was promoted by PG&E, and the other in January 2023 during the heavy wind and rain periods in Northern California. PG&E timed its ME&O campaigns for the onset of fire season in both 2021 and 2022, which is defined by PG&E as June, September, October, and November, whereas CalFire considers fire season to be year-round.

The bulk of net downloads (87%) were installed on iOS (Apple) devices.¹⁹ The remaining 13% were downloaded to Android devices. Downloads over time are illustrated in Figure 24.

Figure 24: PG&E Report It Net Downloads



Unique Submissions

There were 1,621 unique submissions from July 2021 through February 2023.

The majority of submissions (61%) identified issues with trees or vines touching or encroaching on equipment. Another 21% of submissions were power pole issues. The number of submitted issues by type are shown in Table 6 and defined below:

- “Other Electrical” includes all issues not otherwise classified. This ranges from bird nests to illegal connections.
- “PG&E Equipment” refers to concerns related to utility boxes, insulators, and transformers.
- “Power Line” issues include low or sagging lines as well as lines with foreign objects tangled in them (e.g., balloons, bags, shoes, or disconnected branches).
- “Power Pole” issues include leaning or cracked poles.
- “Tree or Vine” issues refer to dead or dying tree branches overhanging power lines or vines and other growth within four feet of a conductor.

¹⁹ The iOS version of PG&E Report It is also employed by entities such as schools and businesses whose workers are by default assigned the reporting tool. These organizations represent bulk downloads of multiple apps for use by designated employees. Bulk downloads are not reflected in Figure 3. Large bulk downloads occurred in March 2022 (1,000), June 2022 (5,000), and October 2022 (10,000).

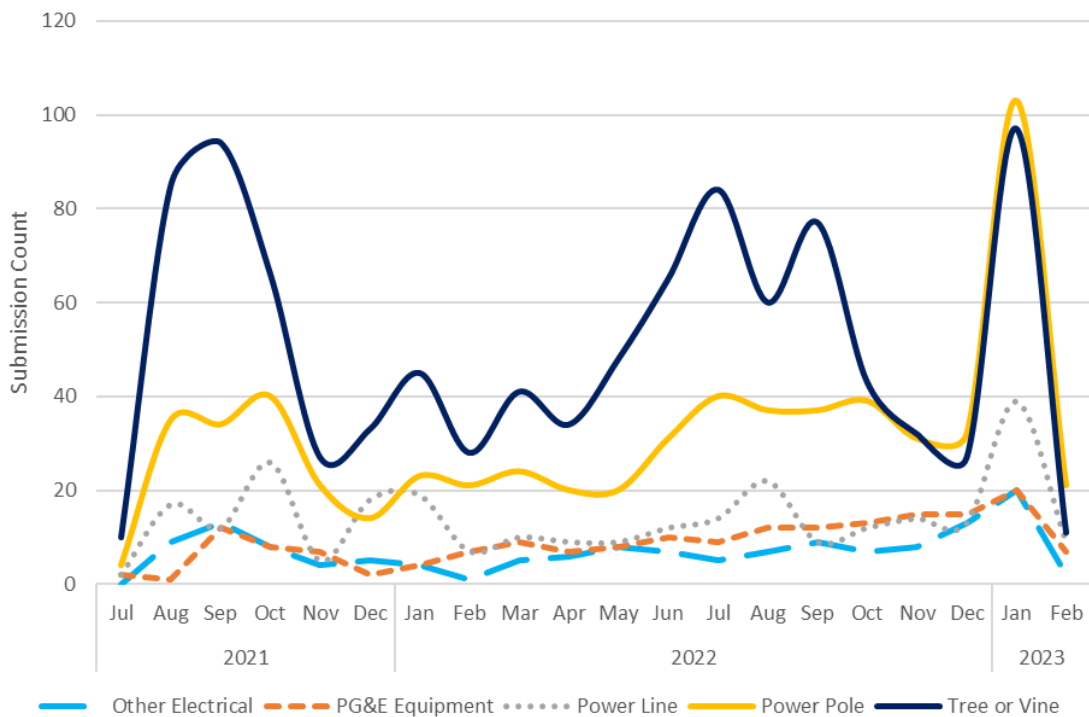
Table 6. Number of Issues Submitted by Type

Safety Issue Type	Valid	% of Valid	Invalid	Total	% of Total
Tree or Vine	651	60%	166	817	50%
Power Pole	228	21%	97	325	20%
Power Line	88	8%	130	218	13%
PGE Equipment	79	7%	70	149	9%
Other Electrical	36	3%	76	112	7%
Total	1,082	100%	539	1,621	100%

While the majority of submissions were during the months of August and September, there was a spike in submissions in January 2023, which mirrors user downloads and is likely related to the severe winter storms with high winds and flooding that hit Northern California that month (Figure 25).

Of the total submissions, 1,082 (67%) were valid submissions. The remaining 33% addressed issues that were either (1) not related to PG&E electrical equipment or (2) were emergencies and needed to be forwarded to the appropriate PG&E departments or 9-1-1. The timing of these submissions is shown in Figure 25.

Figure 25: Submission Timing



3.5.2 Safety Report Characterization

Unique and New Safety Concerns

During the pilot period spanning July 28, 2021–February 10, 2023, there were 2,233 total submissions in PG&E Report It. Of these, nearly one-quarter were regarding safety concerns that had been previously reported by a different user. For the purposes of this evaluation, our analysis focuses on **unique submissions**—both valid and invalid.

This section presents metrics, as defined in the CPUC Decision language, based on the 1,621 unique issues identified via PG&E Report It during the pilot period. For brevity, we will refer to ‘total unique submissions’ as ‘total submissions’ in this section.

612 safety concerns were duplicate submissions; 413 of which were already known to PG&E. Most concerned power poles (49%) and overgrown vegetation (31%).

In some cases, PG&E had already identified a safety issue outside PG&E Report It through their daily operations. Any report through the app of an issue already known to PG&E is flagged as a ‘duplicate’ regardless of the original source.

If a safety concern is a duplicate not already identified by PG&E, it is an issue reported by more than one app user or reported more than once by the same user. Counts of duplicate submissions by type and source are presented in Table 7.

Table 7. Number of Duplicate Submissions (Sorted by Duplicate Total)

Safety Issue Type	Duplicate			Not Duplicate	Total
	Not Already Identified by PG&E	Already Identified by PG&E	Total	Unique Submissions	
Power Pole	47	255	302	325	627
Tree or Vine	106	84	190	817	1,007
Power Line	23	38	61	218	279
PGE Equipment	13	18	31	149	180
Other Electrical	10	18	28	112	140
Total	199	413	612	1,621	2,233
Percent of Total	33%	67%	27%		73%

Duplicates are to be expected and should be considered a positive outcome since they indicate multiple app users are identifying the same problems with PG&E infrastructure. According to PG&E, they occur throughout the year and are typically first identified by PG&E via alternative channels.

Nearly half of the valid safety concerns reported in the app were not previously known to PG&E. Of the 1,621 unique PG&E Report It submissions, 653 (40%) were flagged as valid safety issues not already identified by PG&E before being submitted through PG&E Report It (Table 8). In addition, 411 (25%) were valid but not considered safety issues after PG&E review. This indicates that PG&E’s awareness of safety issues is increasing due to PG&E Report It. It should be noted that valid

submissions are the more relevant metric, given actual safety concerns (including ignition risks) can only be ‘valid’ as per PG&E’s definition. All ‘invalid’ submissions are redirected to the appropriate entity (e.g., 9-1-1, PG&E gas department) and not reviewed by the fire safety team.

Table 8. Count of Safety Issues Not Previously Identified by PG&E

Concern Type	Valid No Safety Concern	Valid with Safety Concern	Invalid	TBD	Total
Other Electrical	18	23	70	1	112
PGE Equipment	29	49	66	5	149
Power Line	33	47	117	21	218
Power Pole	64	161	83	17	325
Tree or Vine	267	373	146	31	817
Subtotal	411	653	482	75	1,621
Percent of Total	25%	40%	30%	5%	100%

This finding is bolstered by the fact that 60% of active users indicated they had not previously reported a safety concern, and 43% of those said it was because they had not previously spotted a safety hazard. The fact that close to 28% of all active users surveyed are now seeing and reporting safety concerns for the first time is worth future exploration.

Valid versus invalid submissions

A ‘valid’ submission to PG&E Report It is defined as a non-emergency safety concern related to PG&E’s electrical equipment. In contrast, an ‘invalid’ submission refers to any submitted concern that does not meet the qualifying definition of ‘valid.’ Invalid submissions include emergencies, as well as reports concerning gas or non-PG&E assets and reports lacking sufficient information to verify involvement of a PG&E asset or the location of the issue. Neither the CPUC nor PG&E want customers to report immediate threats via the app, as the triage team is not staffed 24/7 or trained to respond to emergencies. In our research, we found most user submissions to PG&E Report It during the evaluated time period were valid (67%).

Emergencies, which are not appropriate for PG&E Report It and are therefore invalid submissions, accounted for 135 (8%) of all 1,621 unique submissions. An ‘emergency’ is defined as a submission requiring immediate response.²⁰ When a user selects “report a concern” in the app, an additional prompt appears asking “Is this an emergency?” and advises the user that in the case of emergencies, one should first call 9-1-1 and then PG&E’s call center. The prompt also reminds users to “use the app to report non-emergency electrical hazards.” When the triage team identifies an emergency, it notifies the appropriate PG&E departments, for example, Emergency Storm Response, the 24-hour Power Outage Information Center, or PG&E’s gas department.

²⁰ Not all emergencies require immediate response via 9-1-1. Rather, some ‘emergencies’ are internally defined by PG&E. For example, issues with pole support anchors, animal mitigation, and decayed poles are considered internal emergencies to PG&E that should be addressed immediately but should not be routed through a 9-1-1 call.

Emergency situations that were inappropriately reported using PG&E Report It included,

- Power outages due to equipment damage,
- Power outages due to storm,
- Broken wires, and
- Mylar balloons in wires.²¹

While emergencies accounted for 25% of all invalid submissions, the majority of invalid submissions (52%) were related to non-PG&E assets (Table 9). Other types of invalid submissions are defined below:

- Gas: These issues revolved around gas meter concerns and were routed to PG&E's gas department.
- Not appropriate (N/A): Submissions not related to immediate PG&E electrical fire risk. Examples of these types of submissions include,
 - Issues on the customer side of the meter (e.g., panels),
 - More information needed from the user,
 - Service drop for a single customer,
 - Road work not connected with PG&E,
 - Duplicate submissions, and
 - Power pole conditions that PG&E considers to be normal wear and tear.
- Non-PG&E Asset: These were reports of damaged equipment that belonged to telephone and cable companies. Again, these issues accounted for 281 (more than 50%) of all invalid submissions.

²¹ Mylar balloons do not warrant a call to 9-1-1. PG&E instructs customers to contact its call center in the event of a mylar balloon caught in overhead lines.

Table 9. Number and Percentage of Submissions Deemed Emergencies

Safety Issue Type	Valid	Invalid Submissions				Total Invalid
	Total Valid	Emergency	Gas	N/A	Non-PG&E Asset	
Tree or Vine	650	21	4	24	118	167
Power Pole	229	12	2	38	44	96
Power Line	87	53	0	9	69	131
PG&E Equipment	76	19	21	14	19	73
Other Electrical	36	30	3	12	31	76
Total	1,078	135	30	97	281	543
% of All Submissions	67%	8%	2%	6%	17%	33%
% of Invalid Submissions	—	25%	6%	18%	52%	100%

Furthermore, most submissions related to non-PG&E assets reported trees or vines growing on or touching equipment such as phone and cable wires and boxes (Table 10). This may be unavoidable because vegetation can obscure the wires themselves.

Table 10. Submissions Reporting Issues with Non-PG&E Assets

Safety Issue Type	Valid	Invalid Submissions				Total	%
		Emergency	Gas	More Info Required	Non-PG&E Asset		
Tree or Vine	650	21	4	24	118	817	50%
Power Pole	229	12	2	38	44	325	20%
Power Line	87	53	0	9	69	218	13%
PGE Equipment	76	19	21	14	19	149	9%
Other Electrical	36	30	3	12	31	112	7%
Total	1,078	135	30	97	281	1,621	100%
% of Total	67%	8%	2%	6%	17%	100%	

Improvement in Public Safety

Of the total 1,621 submissions, 684 constitute actual safety issues.

While 1,019 (63%) of submissions are valid (i.e., appropriate for the app) not all of those constitute actual safety issues. ‘Valid safety issues’ include any that are deemed to present an actual safety concern as defined by PG&E (n=510), a violation of a safety regulation (n=46), or both (n=92).

PG&E Report It users are correctly identifying not only valid safety concerns but also violations of safety regulations (Table 11). Note that at the time of analysis, 63 submissions were still under review due to insufficient information being subtracted from the total to calculate the percentage of submissions that were actual safety hazards.

Table 11. Number of Submissions Deemed Valid Safety Concerns

Safety Concern / Violation	Safety Issue Type					Total
	Other Electrical	PG&E Equipment	Power Line	Power Pole	Tree or Vine	
Presents a safety concern	23	49	40	155	243	510
Does not present a safety concern or violation of a safety regulation	13	24	28	55	251	371
Presents a safety concern or presents a violation of a safety regulation	0	0	5	4	83	92
TBD more information required	0	4	14	14	31	63
Presents a violation of a safety regulation	0	2	1	0	43	46
<i>Invalid Submissions</i>	76	70	130	97	166	539
Total	112	149	218	325	817	1,621

Actual Ignition Risks

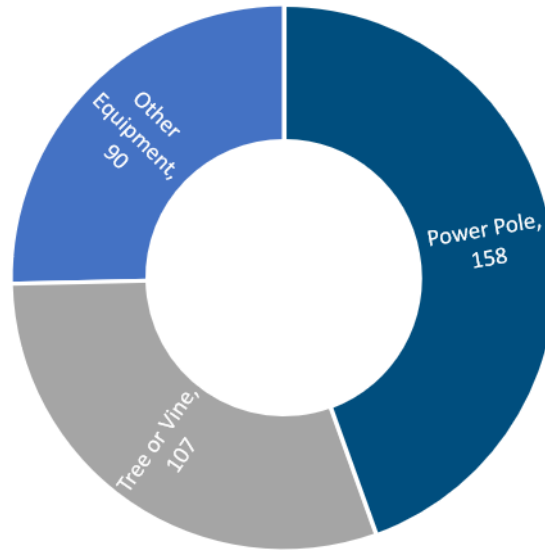
While all ignition risks are safety risks, not all safety risks are ignition risks. For example, a tripping hazard poses a risk to public safety but is not an ignition risk. PG&E's response team defines an ignition risk as a safety concern that is reported in an HFTD and compromises PG&E's electrical infrastructure. **According to PG&E's risk analysis team, 355 submissions (22%) were identified as ignition risks** (but not emergencies that should have been reported via 9-1-1).

Of the ignition risks submitted, about two-thirds (62%) required replacing equipment and about one-third (30%) required removing material such as vines, trees, and foreign objects. Actions taken to remedy these situations and their frequency are presented in Table 12. Frequencies by type of ignition risk are provided in Figure 26.

Table 12. Ignition Risk Abatement

Action to Eliminate Ignition Risk	Occurrence	%
Replacing equipment	221	62%
Removing materials	107	30%
Adjusting equipment	17	5%
Repairing equipment	10	3%
Total	355	100%

Figure 26: Count of Submissions with Ignition Risk by Type.



User Location

Overall, nearly half of valid submissions (42%) came from outside an HFTD. At first glance, this is surprising given that PG&E promoted PG&E Report It to only HFTD Tier 2 and Tier 3. It is less surprising, however, when considering the following:

- PG&E Report It is available to the general public and not limited to those residing in HFTDs.
- We do not know which non-HFTD reports were submitted by users who reside in the targeted areas and were elsewhere when they spotted a safety concern.

A heat map of report submissions across PG&E's territory during the evaluation period is available in APPENDIX D.

The remainder of valid submissions (58%) were almost equally split between the two targeted tiers: just over one-quarter (27%) of the valid submissions were from the highest fire threat district ('Tier 3-extreme threat'). Another quarter (25%) were from 'Tier 2-elevated threat' areas. This is to be expected since PG&E targeted these areas for promotion. Note that submissions considered 'invalid' are not assigned to an HFTD. All submissions are summarized in Table 5.

Few safety concerns were reported in Tier 1 HHZs. At the time of this evaluation, we did not know if this because PG&E did not promote PG&E Report It to customers in this area, or if those customers may have heard about the app but were well-informed and know to call 9-1-1 to report concerns. Submissions are categorized by HFTD in Table 13.

HFTDs have high numbers of dead or dying trees and are further identified by their relative propensity for wildfire outlined below:

- Tier 1 HHZ: Dead or dying trees are in direct proximity to communities, roads, and utility lines, and are a direct threat to public safety.

- Tier 2 HFTD: There is an elevated risk (including likelihood and potential impacts on people and property) from wildfires associated with overhead utility power lines or overhead utility power-line facilities also supporting communication facilities.
- Tier 3 HFTD: Denotes extreme risk. It is distinguished from Tier 2 by having the highest likelihood of utility-associated fire initiation and growth that would impact people or property, and where the most restrictive utility regulations are necessary to reduce utility fire risk.

PG&E targeted residential customers living in Tiers 2 and 3 with emails and direct mail (bill inserts or postcards) promoting PG&E Report It. The pilot did not include Tier 1 HHZ in ME&O efforts because any safety concern in that area poses a near and immediate risk of wildfire, and customers are expected to report those concerns using 9-1-1.

Table 13. Submissions by HFTD

Safety Concern / Violation	Valid				Invalid	Total	%
	Non-HFTD	Tier 1 HHZ	Tier 2 HFTD	Tier 3 HFTD			
Presents a safety concern	198	47	143	121	8	517	32%
<i>Invalid Submissions</i>					481	481	30%
Does not present a safety concern or violation of a safety regulation	180	15	89	90	38	412	25%
Presents a safety concern; Presents a violation of a safety regulation	22	1	18	50	-	91	6%
TBD more information required	43	1	8	11	12	75	5%
Presents a violation of a safety regulation	18	2	13	12	-	45	3%
Total Submissions	461	66	271	284	539	1,621	100%
Percentage of Valid Submissions	43%	6%	25%	26%	---	---	---
Percentage of Total Submissions	28%	4%	17%	18%	33%		

3.6 Costs and Benefits

We conducted our analysis in Q1 2023 and compared 2021 and 2022 cost data for PG&E Report It to the cost data for PG&E's other wildfire prevention measures and comparable marketing efforts.

While total wildfire prevention costs PG&E upwards of two billion dollars annually, PG&E Report It has cost approximately three million dollars of shareholder funds in each of its first two years. This expenditure includes development fees and ongoing maintenance; the latter is projected to be less than one million annually.

As a pilot, the PG&E Report It app was initially designed for a limited number of users in 2021. At the time of this report, the app is being evolved to support more customers and process higher usage, given the utility expects many more people to use the app after learning about it.

Annual costs in each of the first two years, 2021 and 2022, averaged \$3.1 million including development, outreach, launch, maintenance, and triage (i.e., review and processing of safety reports).

PG&E anticipates spending \$3.0 million per year on average in 2023 and 2024. This includes \$5.2 million in 2023 and 2024 to refine the app and build an app infrastructure that will accommodate PG&E's 16 million customers. Once the app has been developed to support a greater number of users across the service territory in 2025, PG&E anticipates operations and maintenance will run about \$838,000 per year.

Table 14 shows the actual expenditures, net downloads, and submissions from the app for 2021 and 2022.

Table 14. Actual Costs Per Submission (Including Duplicates)

Year	Spent	Downloads	Submissions*	Submission Rate	\$/Submission
2021 act.	\$3,190,446	13,422	614	5%	\$5,196
2022 act.	\$3,049,659	19,616	1,290	7%	\$2,364

*Includes duplicates as PG&E must review, triage, and process all safety report submissions

Currently, it is not feasible to make cost per submission projections for a future PG&E Report It app and supporting program. The utility has not yet determined when, and at what pace, it will make a fully developed app available to the public and promote the app throughout its service territory. Thus, it is not realistic to estimate the number of future report submissions, which directly impacts maintenance and triage costs.

Comparative Costs

In Table 15, we show PG&E Report It expenditures in the context of other wildfire prevention expenses. The years 2021 and 2022 include actual expenditures; the years 2023 through 2025 are estimates. PG&E Report It costs through 2024 include development; in 2025, the estimated expenditures include operations and maintenance only.

Table 15. Project Expense Comparison (in \$1,000)

Related Activities	2021	2022	2023	2024	2025
Vegetation Mgmt. (FMP) ²²	1,751,067	1,980,005	1,865,536	1,865,536	1,865,536
Call center annual budget ²³	57,349	58,687	58,018	58,018	58,018
Community Engagement (FMP) ²⁴	55,129	54,667	54,898	54,898	54,898
PG&E Report It ²⁵ Development	2,526	2,271	2,411	2,786	838
PG&E Report It ME&O	138	12	22	TBD	TBD
PG&E Report It Training Materials	128	--	--	TBD	TBD
PG&E Report It Triage	384	767	767	767	767
Total Expenditure PG&E Report It	3,176	3,051	3,200	3,553	1,605

Once developed, PG&E’s estimates PG&E Report It maintenance will cost \$838,000 per year plus \$767,000 minimum for triage labor (as currently defined). PG&E staff envision the PG&E Report It app and supporting program would,

- Have feature architecture sufficient to support usage among many more customers;
- Streamline triage, add personnel, and enhance user communications; and
- Use improved data management systems and database to enable more sophisticated analytics (i.e., learn more from user submissions).

Triage costs are expected to increase with increased users, and therefore submissions. This is less than 1% of the estimated total expenditures for a portion of PG&E’s safety and fire related operations activities.

We learned in our staff interviews that PG&E’s call center received 5,550,516 calls, 7.6% of which were safety related. At a reported cost of \$2.44 per safety-related call, **PG&E spent approximately \$1,029,288 to answer more than 420,000 customer calls regarding safety concerns.** While the call center does not disaggregate the nature of those safety concerns by business line or hazard, this figure could form a baseline for comparison as the app’s user base is increased. Table 16 compares call center and mobile app costs.

²² PG&E 2022 Wildfire Mitigation Plan Update, Table 3.1-2, P40, Feb 25, 2022, https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan.page

²³ PG&E correspondence

²⁴ PG&E 2022 Wildfire Mitigation Plan Update, Table 3.1-2, P40, Feb 25, 2022

²⁵ PG&E Report It team via data request

Table 16. Comparison of Call Center and App Costs

Reporting Method	Estimated Cost Per Unit	Total 2022 Spending
Call Center (Safety-Related Calls)	\$2.44 per call	\$1,029,288
Report It Mobile App	\$2,364 per submission	\$3,049,659

As mentioned earlier, 355 ignition risks were reported to PG&E via PG&E Report It in 2021 and 2022. While we cannot know the amount of damage those avoided fires could have wrought, we can consider some baseline avoided costs. The cost to replace a transformer on a pole or smaller substation equipment ranges from \$3,000 to \$150,000 plus labor. A substation transformer can range from \$900,000 to \$1.2 million depending on capacity.

Liabilities from lawsuits for bigger fires can range in the hundreds of millions to billions of dollars. For example, the estimated cost of the Camp Fire was \$422 billion. As of November 2022, PG&E had paid \$5.36 billion into the PG&E Fire Victims Trust from a settlement to compensate victims from recent fires determined to be started by PG&E equipment (i.e., 2015 Butte, 2017 North Bay, and 2018 Camp).

Benefits

Our findings illustrate that the app’s value is significant and worthy of development beyond the pilot. The app increases the scale of PG&E’s safety operations by empowering residents (who are familiar with their neighborhoods) to notice and report damaged equipment or potentially dangerous situations (40% of safety concerns were not previously known to PG&E). In 2022, the cost per safety submission was \$2,364, which is a reasonable expense compared to PG&E’s other preventative measures. If even one submission a year avoids an ignition event from a pole transformer, then the benefits from the app will outweigh the costs to maintain it. Moreover, the per report cost should decrease as the app is made available, downloaded, and used by more customers.

3.7 Other Findings

Staff Resources

PG&E personnel were required to make site visits in response to 732 submissions, nearly half (45%) of the total (Table 17). Of these, 550 (75%) were primarily to inspect trees or vines touching or encroaching (located within four feet or less) on power poles or power lines (Table 8). Nearly all of PG&E’s vegetation reports require a site visit, as staff cannot judge ignition risk from a two-dimensional image.

Table 17. Submissions Resulting in a Site Visit

Safety Issue Type	First Responder	General Public	Road Crew Worker	Tree Service Worker	Utility Worker	Total	%
Tree or Vine	7	460	2	21	27	518	71%
Power Pole	1	106	3	1	19	130	18%
Power Line	0	30	1	3	4	37	5%
PG&E Equipment	1	17	0	0	8	26	4%
Other Electrical	0	17	0	0	4	21	3%
Total site visits	9	630	6	25	62	732	100%
% by submitter	1%	86%	1%	3%	8%	---	100%
% of all submissions	1%	39%	0%	2%	4%	---	45%

Only three site visits were initiated for non-safety issues. See Figure 27 for photos submitted from these three cases concerning wooden equipment: holes in a transformer pole, a leaning power pole, and a broken crossarm (from left to right).

Figure 27. Site Visits for Non-safety Issues



PG&E Report It was developed by a third-party vendor and is maintained and managed internally. Those internal tasks are performed by a mix of contractors hired expressly to support the app and PG&E employees who divide their time among the app and other responsibilities (Table 18).

Table 18. Staff Assigned to PG&E Report It

Staff Person	Role	% Time Spent on PG&E Report It
Developer (PG&E)	Front end (user interface)	<100
Developer (contract, open position at time of staff interview)	Front end (user interface)	100
Developer (contract)	Back end (Salesforce)	100
Developer (contract)	Back end (Salesforce)	100
Developer (contract)	Back end (Salesforce)	100

Staff Person	Role	% Time Spent on PG&E Report It
Developer (contract)	Back end (SAP integration)	100
Developer (contract)	Back end (SAP integration)	100
Developer (contract)	Back end (SAP integration)	100
TCO Team (PG&E)	Production support	<100
Business team (PG&E)	App Store user feedback	<100
Triage team (PG&E)	Reviews submissions	100
Program manager (PG&E)	Back-end coordination	<100
Program manager (PG&E)	User Interface front end	<100
Director (PG&E)	Oversee pilot	<100

Thus, PG&E Report It does create financial cost (e.g., budget spend on contract staff) and opportunity cost (e.g., time that could be spent on other assignments). Again, considering the overall cost of the app relative to PG&E’s other wildfire prevention measures, it appears to be a modest expenditure.

4. Conclusions and Recommendations

4.1 Conclusions

4.1.1 Effective and Engaging

PG&E Report It is effective at preventing wildfire and improving public safety. More than one-fifth of the safety reports submitted from the time of the app’s launch in July 2021 to mid-February 2023 were identified as ignition risks. Forty percent of submissions constituted actual safety concerns, (i.e., posed hazards including and beyond wildfire) and were not previously known to PG&E.

Perhaps equally important, PG&E Report It appears to encourage users to proactively scan their environment for safety concerns. More than half (60%) of active users had never submitted a safety report before, and among them, nearly half (43%) had not previously noticed anything that appeared hazardous. This suggests the app drives greater awareness and vigilance against wildfire and public safety risks.

4.1.2 Reasonable Cost

Given that its costs including development were approximately \$6 million in its first two years compared to PG&E’s annual \$2-plus billion budget for wildfire prevention, PG&E Report It appears to be a modest incremental expense. In comparison to PG&E’s call center costs to manage safety-related calls (slightly over \$1 million in 2022, at an estimated \$2.44 per safety-related call), the app’s expected ongoing maintenance costs (\$838,000) appear reasonable. We do, however, expect associated triage costs to increase with increased adoption.

4.1.3 Satisfied Users

PG&E Report It also provides a quality user experience. More than three-quarters of users were mostly or somewhat satisfied with the app, and even more (86%) planned to use the app again. Users were pleased with the app's ease of use and convenience, especially compared to using the call center. Even passive users indicated it was easy to download the app and register to use it. We also learned from PG&E stakeholders who have used the app that it is far more convenient than their existing practice of reporting off-duty safety concerns by contacting an individual PG&E staff person, emailing details and photos, and personally following up. Users typically felt the app was preferable to traditional reporting methods in non-emergency situations.

The accountability mechanisms built into the app, where users can track the status of their report, are a critical advantage of the app from the user perspective. As such, when users were displeased, their concerns were typically rooted in PG&E's response time or if the resolution of their safety concern did not meet their expectations. Users reported expecting regular updates, details, and timelines for mitigation. They expected to be kept informed of when and how the issue would be resolved, and they also wanted PG&E to demonstrate greater accountability when following up on non-PG&E assets. Essentially, PG&E Report It is a public safety tool and is reliant upon robust customer engagement; the latter requires customers to trust that PG&E will, in fact, respond to their safety concerns quickly and effectively. Thus PG&E's transparency—its review process, customer communications, and report resolution—is at the heart of its value proposition.

Not surprisingly, the gas service employee we interviewed would like to see the scope for PG&E Report It expanded to include gas assets and underground infrastructure; we believe this is worth further exploration. We also heard frustration from users regarding difficulties experienced when uploading photos (and some questioned the photo requirement) or logging their location. PG&E pilot staff are aware of technical issues and continuously work to remedy them as part of ongoing operations.

4.1.4 Customers Use Correctly, Merits Further Education

Users are mostly submitting reports correctly: 67% of safety reports were valid. Given that 33% are submitting invalid reports, mostly related to non-PG&E assets (17%) and some (8% of total submissions) emergencies; however, further customer education is warranted. This should be a straightforward endeavor as PG&E's ME&O campaigns centered on email appear to be reasonably effective; while its direct mail efforts yielded notably fewer downloads according to the data we reviewed. Still, there may be value to incorporating less effective outreach approaches when combined with higher-yielding methods. As our survey results indicate, customers prefer to hear about initiatives like PG&E Report It through a variety of marketing channels (Figure 5 and Figure 6). The survey data also indicate that the app increased nearly half (46%) of customers' satisfaction with PG&E, a significant boost.

4.1.5 Assessment

Considering the above findings, we conclude that PG&E Report It is cost-effectively delivering a critical benefit to PG&E customers and the State's energy safety goals and should continue to be offered and expanded to other parts of the territory. While feedback from customers is positive overall, it should be noted that these users are pilot participants and early adopters; that is to say, they are already engaged customers. As such, there may be new kinds of challenges and barriers motivating other segments of PG&E's customer base to participate. PG&E can use these findings to inform its future ME&O and operations for the app. Our evaluation found that PG&E Report It is evaluable and largely collects the type of data and information needed to periodically monitor its performance.

4.2 Recommendations

We recommend that the PG&E Report It mobile app be elevated out of pilot status to become a permanent PG&E electric safety program. As a part of the transition, we recommend that PG&E make available the resources necessary to optimally expand the mobile app's reach throughout PG&E's electric service territory. We also encourage a robust ME&O campaign that encourages both awareness of wildfire prevention and how to correctly distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app.

We offer the following specific recommendations based on this evaluation.

4.2.1 Ongoing Management

- In preparation for any future evaluations, build on existing partnerships across the utility (e.g., call center, risk management, marketing) to address the specific data and evaluability gaps we outline in the Performance Metrics Evaluability Assessment section.
- Make raw data easily accessible to key staff (e.g., triage lead and product manager) who manage distinct aspects of the app, to support future evaluations.
- Leverage the lessons learned and processes developed to provide data for this evaluation to streamline future data requests. Providing data for this evaluation was challenging due to the specific metric definitions, in that it required pulling data from multiple sources, across several departments, into new kinds of reports or formats in order to address specific evaluation metrics. Keep these processes in place, such that PG&E can quickly refresh and distribute this data more efficiently upon request.

4.2.2 Programming and Process

- Continue with plans to make additional improvements prior to scaling the app to more users or geographies; and maintain robust feedback monitoring processes.

- Track or rank multiple data points in combination, such as ignition risks with location data, equipment, and labor costs to increase the utility's understanding of the full benefits and costs of ignition avoidance.
- Determine if the app's programming could support a map-based alert for any report submissions pertaining to Tier 1 HHZs (i.e., the areas with the highest risk of wildfire) that would encourage the user to immediately call 9-1-1 if the issue is an emergency.
- Continue to support the PG&E Report It for both Android and Apple iPhone platforms.

4.2.3 User Behavior

- Continue to track and identify duplicate submissions along with who is providing duplicate submissions and when they are submitted. There is an important distinction between a safety concern that is reported by more than one user and one that is already known to PG&E. The former indicates a degree of customer awareness and concern. This could help PG&E, over time, better understand user behavior. Ideally, duplicates will come from multiple users rather than a single user providing multiple submission for the same issue, due to misusing the app or worrying their report was not received.
- There are opportunities for PG&E to look at not just their own processes, but also the customer pathway within the app and the pilot as a whole:
 - PG&E may wish to remind customers to check their spam email folders when expecting a reply to their submission, and then assess if users are more satisfied with PG&E's response.
 - More description or explanation regarding submission resolution may satisfy customers' need to feel their concern was adequately addressed; for example, if a report is closed, provide more detail as to why.
 - Users may believe they are using offline mode when they are not; this also warrants further exploration of the customer journey.

4.2.4 ME&O

- The majority of submissions (85%) were from the general public. If PG&E plans to encourage use by other groups (such as road crew workers), then targeted outreach (in addition to its pilot phase presentations) is warranted. Additionally, we would also anticipate PG&E working with its own safety personnel or partners to incorporate the PG&E Report It into any existing protocols for reporting. This would necessitate PG&E partners confirming their own interest and the feasibility of integrating the app into their own systems.
 - We do not, at this stage, have enough data to determine the potential of safety personnel incorporating PG&E Report It into their work. We do believe these individuals could be influencers in their own communities and, if familiar and satisfied with the app, could serve as a valuable referral.
- Consider opportunities to better support non-English language speakers in reporting safety concerns. It is likely not feasible to develop a non-English language version of the app or fully

non-English language ME&O materials. However, PG&E could consider developing non-English language pop-ups in the app or components to ME&O materials that direct non-English language speakers to the best resources to support them, such as the call center, which can support over 250 languages.

- We believe there are opportunities for the pilot staff to work with PG&E's marketing team to develop and test the efficacy of different marketing messages for outreach, education, and increased use prior to fire season and significant storms.
- Greater customer education is warranted. The PG&E Report It response team's time for triage and processing (current review time is eight hours according to staff) will improve if PG&E can reduce the number of invalid submissions regarding non-PG&E assets. We recommend identifying the types of assets customers mistake for PG&E assets, then consider adding clarifying information to the PG&E Report It app. For example, if customers typically mistake telecom wires for power lines, add a photo or a drawing showing a pole with multiple wires, and label each one according to its ownership. We noted a diagram within the app that labels wires, but does not explicitly state which ones do not belong to PG&E.
 - While only 8% of total submissions were emergencies, community safety may improve if customers are better able to identify emergencies and report them properly (i.e., not via the PG&E Report It).
- Customer education also includes reinforcement. We recommend using a variety of media (e.g., email, print, website, social media) to remind customers of what constitutes an emergency, particularly prior to peak reporting periods.
- Thank customers at large for using the app and acknowledge that customer submissions help PG&E identify and correct safety regulation violations as well as safety hazards. The fact that 86% of site visits resulted from customer reports demonstrates the importance and impact of customer participation.
- Share statistics on PG&E's website and in targeted customer communications. These should include the number of ignition risks, safety hazards, and safety violations users have reported and PG&E has resolved. This message and the above communicate PG&E accountability and are integral to reestablishing the public's trust.

APPENDIX A. Survey Methodology

The evaluation team conducted two web surveys of PG&E customers who had different interactions with PG&E Report It and with PG&E’s ME&O materials. The evaluation team surveyed (1) PG&E customers, PG&E stakeholders, and third-party vendors involved in wildfire prevention who had received an email from PG&E telling them about PG&E Report It and encouraging them to download it, but who had not submitted a safety report through the app; and (2) PG&E customers and stakeholders, including third-party vendors involved in wildfire prevention who had submitted a safety report through PG&E Report It. The purpose of these surveys was multi-faceted: to evaluate the efficacy of outreach and training efforts around the app; to better understand how user-friendly the app is and potential ways to improve it; and to explore spillover benefits and positive externalities from customers’ interaction with the app.

In both cases, the evaluation team offered a \$5 incentive to eligible customers who completed the survey.²⁶ Respondents received a digital gift card that allowed them to select from multiple online retailers and non-profit organizations. Two hundred and sixty-five respondents claimed their incentive. The evaluation team also ensured that the fielding timeline did not present a disruption or inconvenience to participants during wildfire season. We worked closely with PG&E leading up to and during survey fielding to ensure that fielding paused should an imminent or active wildfire occurred in the targeted service territory. Table 19 shows our survey framework and sampling approach as well as response rates for each survey.

Table 19. Sample Frame Description and Response Rates

Survey	ME&O Targeted Customer Survey	App User Survey
Population Description	Customers and PG&E stakeholders who were invited via targeted email, to download PG&E Report It app—this consists of residential customers in Tier 2 and Tier 3 HFTD areas. Customers who have submitted a safety report through the app are not included in the population.	Customers and PG&E stakeholders who submitted a valid or invalid safety concern through PG&E Report It. This can include residential customers living in Tier 2 and Tier 3 HFTD areas, and customers living outside those areas.
Population Size	300,000	~1,700 ^a
Sample Size	14,975	1,132
Target of Completes	200	60
Sampling Method	Random sample, split proportionally between Tier 2 and Tier 3 customers	Census
Survey Mode	Web survey	Web survey
Valid Completes	194	184
Response Rate	1.3%	16.3%

^a Approximate number of safety reports submitted as of November 1, 2022 (~two months before the survey was fully launched). It does not represent the number of unique users who submitted a report, which would have been calculated upon receipt of participant data.

²⁶ PG&E employees and third-party vendors were not offered an incentive in accordance with PG&E’s no-gifts policy of the PG&E’s Employee Code of Conduct and Supplier Code of Conduct, which establishes that employees of PG&E, contractors working on behalf of PG&E, and suppliers working with PG&E may not accept gift cards for participating in efforts such as these surveys.

The overall number of completes is 378 respondents. The app User Survey understandably had a considerably higher response rate than the ME&O Survey, given that app users are customers who are already engaged with PG&E Report It and, therefore, more likely to respond to a survey about it. The majority of respondents (84%) were part of the general public, while a small proportion (16%) consisted of PG&E stakeholders involved in wildfire prevention (Figure 28). Moreover, about three-quarters of survey respondents (76%) lived in a Tier 3 HFTD, about one-fifth (18%) lived in a Tier 2 HFTD, while a few respondents (6%) lived outside of Tier 2 or Tier 3 HFTDs (Figure 29).

Figure 28. Survey Respondents Characterization (n=378)

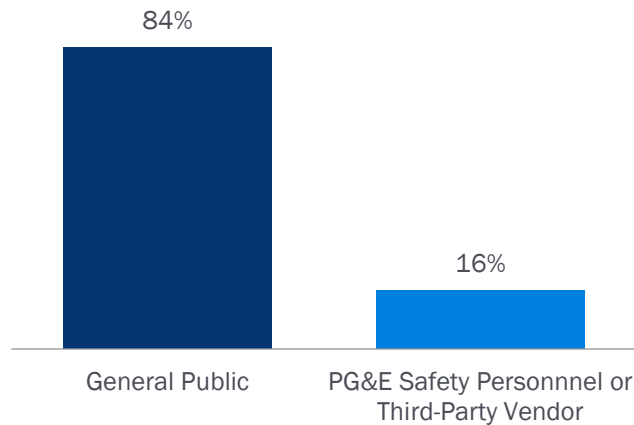
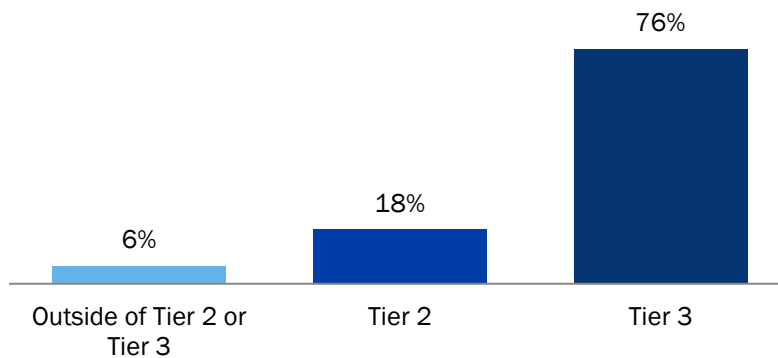


Figure 29. Survey Respondents by High Fire Threat District (n=378)



Customer Characteristics

About two-thirds (68%) of survey respondents were over 55 years old (Figure 30). A similar proportion of customers (65%) had a higher education degree (Figure 31).

Figure 30. Age Distribution of PG&E Customers (n=378)

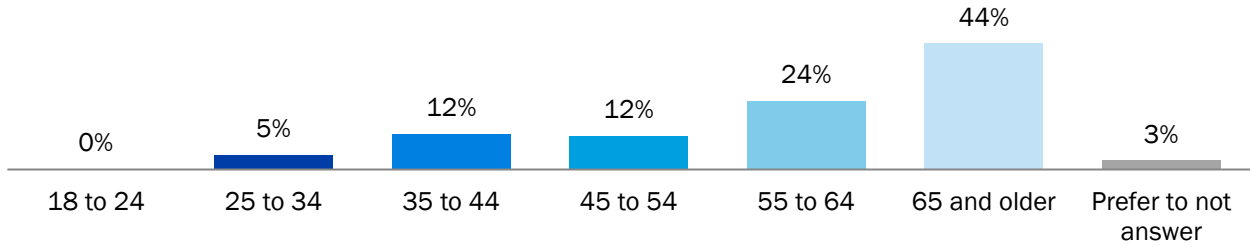
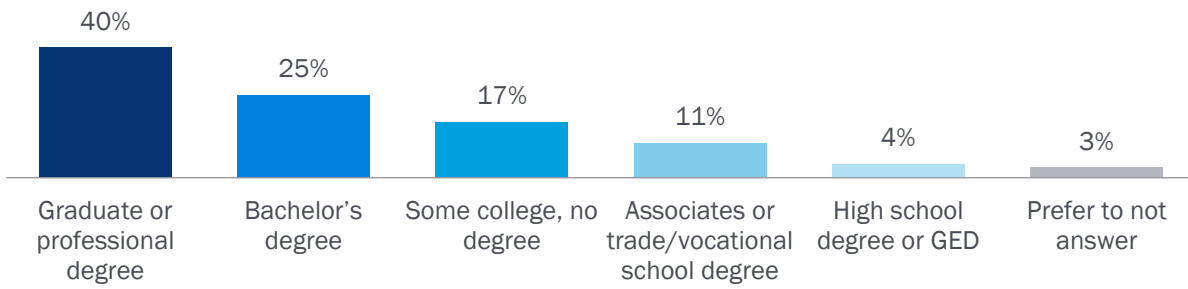


Figure 31. Education Level among PG&E Customers (n=378)



APPENDIX B. Stakeholder Interviews

Table 20. Stakeholder Interview Respondents (n=11)

Interview Respondent	Employer	Job Title	Works in Field	Responsible for Safety	Used App on Job
1	PG&E	Electric Management	Occasionally	No	No
2	Not PG&E (Did not disclose employer)	Flagger	Yes	Yes	No
3	PG&E	Construction Team Analyst	No	No	No
4	PG&E	Electric Estimator	Occasionally	Yes	No
5	PG&E	Attorney	No	No	No
6	PG&E, Gas Division	Mechanical Engineer	No	No	No
7	PG&E	Land Surveyor	Yes	No	No
8	PG&E	Project Manager for Access	Yes	Yes	No
9	PG&E	Public Safety Specialist	No	No	No
10	Canus Corporation	Line Inspector	Yes	Yes	Yes ²⁷
11	PG&E	Senior Electric Mapping Technician	No	No	No

²⁷ Used app on job with supervisor's permission. Also reported safety concern through the protocols required for his job.

APPENDIX C. Stakeholder Suggestions

All 11 respondents provided at least one suggestion for PG&E to improve PG&E Report It. Suggestions included ways to increase usability, refine and integrate report tracking, and improve follow-up user communications. A couple of respondents also identified the need for additional marketing to increase customer awareness of PG&E Report It as a resource; we reminded them the app is currently in a pilot stage.

While we considered stakeholder suggestions holistically in crafting our recommendations for improving PG&E Report It, we did not incorporate any user suggestions verbatim or literally. Our in-depth interviews were with users, not app developers or triage specialists. These 11 interviews should certainly form the basis for future exploration but should not drive program design.

Provide Greater Detail

Respondents noted that while they were satisfied with the level of detail they received in response to their safety report, they anticipated members of the public might expect more information.

One respondent proposed that while PG&E's review of a safety report is 'in progress,' the utility should share as many details as possible with the user, such as the estimated date range for mitigation. Another respondent thought PG&E should add, "...if issue is not resolved by this date, please contact us again," to discourage repeat submissions for the same issue.

Additional suggestions included updating users more frequently and offering an option for push notifications in the app, enabling users to opt-in to automatically receive alerts when the status of their report is revised. One respondent felt that it was unfair for PG&E to ask customers to help them by identifying these safety issues, when they in return do not take the time to sufficiently follow-up:

"Don't offer me an app and ask me to do the work if you're not going to do the extra step and follow-up with me."

This sentiment was echoed in the User Survey: respondents indicated frustration when PG&E did not respond to their safety reports as expected.

Enhance Functionality

During our interviews, respondents made several suggestions to expand the PG&E Report It's reach and specificity. For example, the app could accept safety issues related to underground operations such as a broken vent on an underground transformer lid. In addition, the app could include PG&E's gas infrastructure.

"[PG&E is] a combined utility. When I tried to report what turned out to be a gas facility, the [PG&E Report It] response back was, 'Thanks very much. That is not a

PG&E facility.’ But that was wrong information. So, I had to persist and follow up with basically our gas organization outside the app.”

Respondents also wanted to see PG&E Report It,

- Prompt users to add the pole number to submissions to enable the triage team to easily, quickly, and more accurately locate the site of the safety issue;
- Remind users throughout the app to call 9-1-1 for urgent issues; and
- Allow for auto-rotate, which allows the user’s screen to automatically adjust and rotate depending on how the device is being held.

Reporting System Efficiency

Respondents were not familiar with PG&E backend operations and did not know how safety reports were processed via PG&E Report It versus the call center. With that caveat, two respondents recommended PG&E streamline their reporting processes such that all reported safety concerns are recorded and accessible within a single database (if the utility is not doing so already). As per PG&E staff, safety concerns reported to its call center are recorded in a database separate from the PG&E Report It database.

We separately interviewed a call center manager responsible for process flows, who explained that when handling safety concerns, customer service representatives follow highly specific scripts that are structured as decision trees. The representative asks the caller a question, then continues with another question or instruction based on the caller’s response. We reviewed the process flow used by PG&E Report It’s triage team for the purpose of better understanding how the app worked. The two intake processes are distinct,²⁸ yet ultimately result in the safety concern being reported to the appropriate line of business: gas or electric.

- One respondent noted the call center was completely unaware and unable to provide an update when they called to follow up on a submitted report.

“The 1-800-PGE-5000 did not have the information that I submitted through [the PG&E Report It]...My sister wants to be there when they replace the pole because...it is right next to her septic [tank]. She said to the 1-800-PGE-5000, I have this case number for the report I submitted and the people on the phone could not find the information from PG&E reporting.”

This points to a broader expectation: that PG&E’s operational centers are aware of one another and have access to the same information.

²⁸ We received a diagram illustrating PG&E Report It’s process flow for the triage team. We learned about the call center’s process in our interview with a staff member, who was unable to provide the same kind of documentation.

In that vein, another respondent (who prefers direct contact with a live representative) asked that PG&E create a customer service line for PG&E Report It. Such a line could be integrated with the call center.

Provide a User Guide

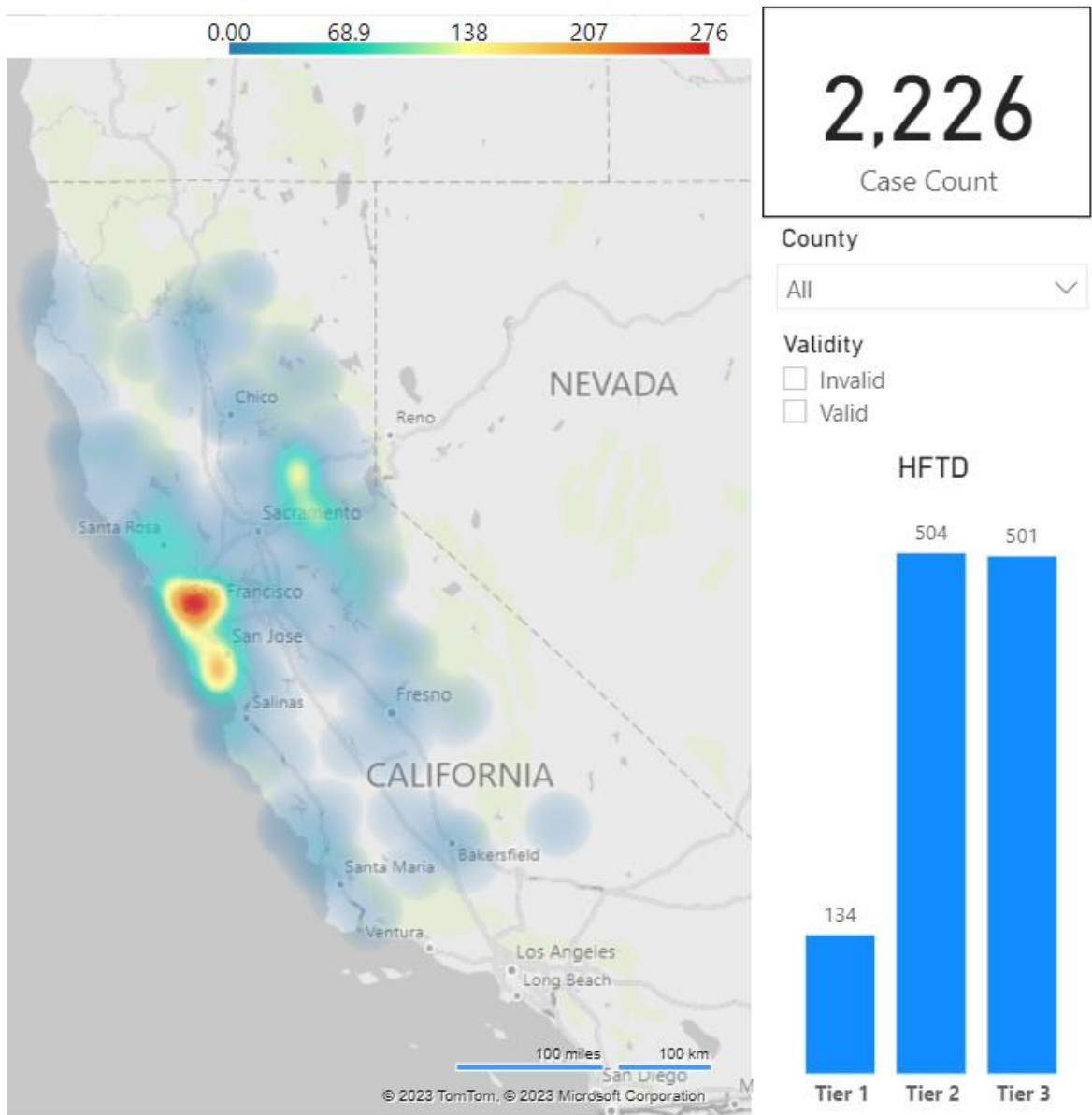
Two respondents mentioned they had expected to receive a user guide that explained how PG&E Report It works and how to use its various features.

By providing this information upfront to users, PG&E could potentially decrease the number of follow-ups they send to request additional information and improve the overall user experience. Moreover, this could further engage customers with varying degrees of facility using PG&E Report It.

APPENDIX D. Heat Map of Submissions

Figure 32 provides a heat map of all submissions between July 28, 2021, and February 10, 2023.

Figure 32. Heat Map of Submissions

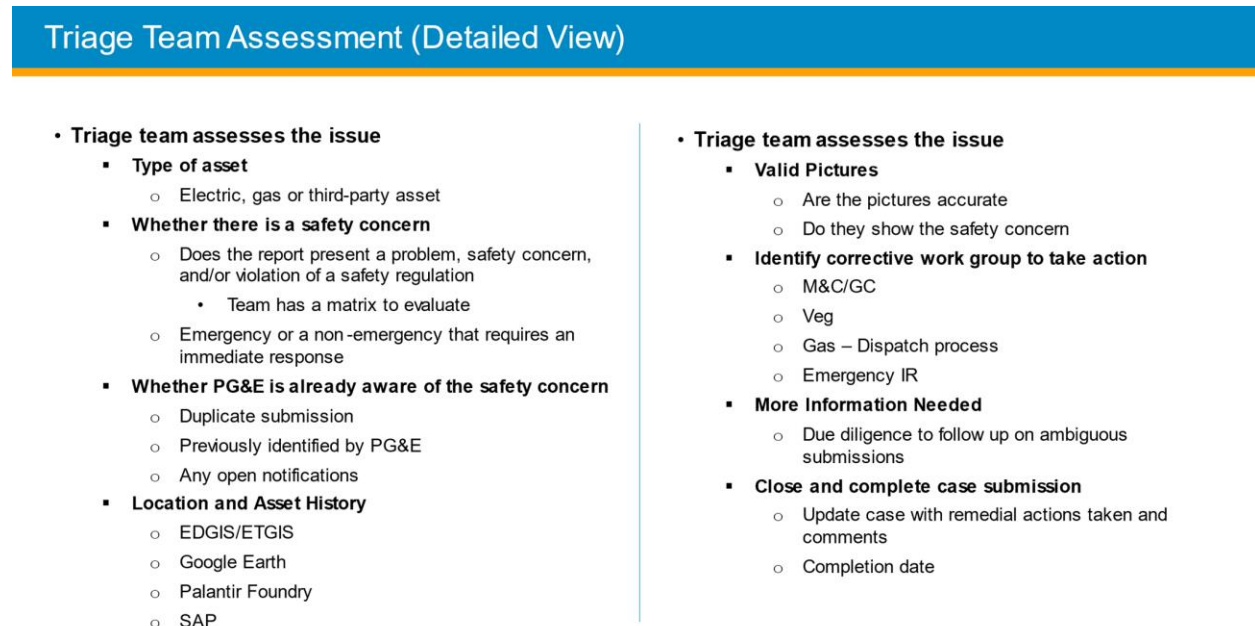


Source: PG&E. Provided on June 1, 2023.

APPENDIX E. Triage Process

Figure 33 summarizes the process PG&E uses to triage safety concerns.

Figure 33. PG&E Triage Process Summary



Source: PG&E. Provided on June 7, 2023.

APPENDIX F. Consideration for Future Studies

The topics above could potentially be explored in future evaluations, pending data availability and interest. Additionally, future studies could consider the following research topics that emerged during this evaluation:

- Using baselines established in the pilot evaluation, assess the program's results including user satisfaction, valid versus invalid submissions, incidence of submissions involving emergencies or non-PG&E assets, and average number of safety reports submitted per user.
- Behavioral or attitudinal characteristics of users as adoption curve matures and the program expands to new areas. For example, explore whether later adopters, or customers in less wildfire prone areas, are more or less attuned to safety hazards around them.
- Assessment of new ME&O: collateral produced in other languages; customer education; reminders to use app.
- Further analysis of the key drivers of duplicative submissions (e.g., multiple customers reporting the same safety concerns) and exploration of potential strategies for reducing them.

APPENDIX G. PG&E Response to Recommendations

Table 21. PG&E Response to Recommendations

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
We recommend that the PG&E Report It mobile app be elevated out of pilot status to become a permanent PG&E electric safety program.	Yes	PG&E plans to make PG&E Report It a permanent program (elevated out of pilot status).	
As a part of the transition, we recommend that PG&E make available the resources necessary to optimally expand the mobile app's reach throughout PG&E's electric service territory.	In Part	PG&E is currently evaluating the recommended approach for a system-wide program.	<p>PG&E has always allowed and will continue to allow customers throughout the territory to submit tickets, which is above and beyond the requirements of the Phase I decision. PG&E has not actively marketed the program outside of Tier 2 and Tier 3 areas to date as these are not the highest risk areas.</p> <p>PG&E plans to continue to focus program marketing efforts on customers in Tier 2 and Tier 3 High Fire Threat Districts (HFTDs). PG&E plans to continue to allow anyone outside of Tier 2 and Tier 3 HFTDs to submit a concern through the app if they register first.</p>

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>We encourage a robust ME&O campaign that encourages both awareness of wildfire prevention and how to correctly distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app.</p>	<p>In Part</p>	<p>PG&E has robust wildfire prevention ME&O. The PG&E Report It program is included in wildfire prevention ME&O, such as the Wildfire Safety Webinars. PG&E plans to update the instructions in the app and on the PG&E Report It web page for further clarity on how to distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app in 2023. PG&E does not agree that an ME&O campaign is the right channel to educate customers on how to distinguish between emergencies.</p>	<p>PG&E believes that education around how to correctly distinguish between emergencies is likely to be most useful in the app and on the PG&E Report It web page. The customer is most likely to be engaged at those two points. It's also information they need to know at the point of submission.</p>
<p>In preparation for any future evaluations, build on existing partnerships across the utility (e.g., call center, risk management, marketing) to address the specific data and evaluability gaps we outline in the Metric to Data Source Mapping and Evaluability Assessment table.</p>	<p>Yes</p>	<p>PG&E plans to build on existing partnerships across the utility to address the specific data and evaluability gaps outlined in the Metric to Data Source Mapping and Evaluability Assessment table.</p>	
<p>Make raw data easily accessible to key staff, e.g., triage lead and product manager, who manage distinct aspects of the app, to support future evaluations.</p>	<p>Yes</p>	<p>PG&E plans to continue to make raw data easily accessible to key staff.</p>	<p>PG&E believes this information is already easily accessible to key staff. Raw data includes personal data, including Sensitive Personal Information, so access is restricted to individuals with a business need.</p> <p>Data without Sensitive Personal Information is shared more broadly through a dashboard that is updated daily.</p>

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
Leverage the lessons learned and processes developed to provide data for this evaluation to streamline future data requests. Providing data for this evaluation was challenging due to the specific metric definitions, in that it required pulling data from multiple sources, across several departments, into new kinds of reports or formats in order to address specific evaluation metrics. Keep these processes in place, such that PG&E can quickly refresh and distribute this data more efficiently upon request.	Yes	PG&E is keeping the processes in place to retrieve data that were developed during the evaluation so that data can be quickly refreshed and distributed.	
Continue with plans to make additional improvements prior to scaling the app to more users or geographies; and maintain robust feedback monitoring processes.	Yes	<p>PG&E plans to continue to make improvements to the app before scaling the app to more users or geographies. This includes a code refactor (in progress), updating internal tools for tracking and processing submissions, and updating the mobile app experience to better educate customers on the types of concerns to submit through the mobile app.</p> <p>PG&E plans to maintain our robust feedback monitoring process.</p>	
Track or rank multiple data points in combination, such as ignition risks with location data, equipment, and labor costs to increase the utility's understanding of the full benefits and costs of ignition avoidance.	Yes	PG&E plans to include more data science and analytics around ignition risk/avoidance.	

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
Determine if the app's programming could support a map-based alert for any report submissions pertaining to Tier 1 HHZs (i.e., the areas with the highest risk of wildfire) that encourages the user immediately call 9-1-1 if the issue is an emergency.	No	None	PG&E does not agree with this recommendation. The location of the issue does not pre-determine if it is an emergency or non-emergency.
Continue to support the PG&E Report It for both Android and Apple iPhone platforms.	Yes	PG&E plans to continue to support the app on both Android and Apple platforms.	PG&E is currently exploring whether a mobile-friendly webpage would get more use and should be considered in place of a mobile app.
Continue to track and identify duplicate submissions along with who is providing duplicate submissions and when they are submitted. There is an important distinction between a safety concern that is reported by more than one user and one that is already known to PG&E. The former indicates a degree of customer awareness and concern, e.g., multiple people alerting PG&E to the same issue. This could help PG&E, over time, better understand user behavior. Ideally, duplicates will come from multiple users rather than a single user providing multiple submission for the same issue, i.e., misusing the app or worrying their report was not received.	Yes	PG&E plans to continually improve the data and quality of the data collected. Improvements are being implemented within the database to clearly track each submission type uniquely.	

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>There are opportunities for PG&E to look at not just their own processes, but also the customer pathway within the app and the pilot as a whole. For example:</p> <ul style="list-style-type: none"> ▪ PG&E may wish to remind customers to check their SPAM folders when expecting a reply to their submission, and then assess if users are more satisfied with PG&E's response. ▪ More description or explanation regarding submission resolution may satisfy customers' need to feel their concern was adequately addressed; for example, if a report is closed, provide more detail as to why. <p>Users may believe they are using offline mode when they are not; this also warrants further exploration of the customer journey.</p>	<p>Yes</p>	<p>PG&E agrees that there are opportunities to improve the customer experience, including:</p> <ul style="list-style-type: none"> ▪ Reminding customers to check for updates in their SPAM and Junk email folders ▪ Improving explanations for why a report is closed ▪ Examining the offline mode and how often it is utilized ▪ Adding a survey link to PG&E response emails to collect feedback on the response process <p>PG&E plans to do this in 2023.</p>	

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>The majority of submissions (85%) are from the general public. If PG&E plans to encourage use by other groups (such as road crew workers), then targeted outreach (in addition to its pilot phase presentations) is warranted. Additionally, we would also anticipate PG&E working with its own safety personnel or partners to incorporate the PG&E Report It into any existing protocols for reporting. This would necessitate PG&E partners confirming their own interest and the feasibility of integrating the app into their own systems.</p> <p>We do not, at this stage, have enough data to determine the potential of safety personnel incorporating PG&E Report It into their work. However, we do believe these individuals could be influencers in their own communities and if familiar with the app – and satisfied with it – could serve as a valuable referral.</p>	No	None	<p>When PG&E conducted outreach and education to vegetation management contractors and joint-pole partners, they expressed a preference for their existing reporting processes. They did not see a need to use PG&E Report It.</p> <p>PG&E's own safety personnel (the System Inspections team) use an internal app to report safety concerns. The internal app is better suited for the System Inspections team to use because the internal app and associated processes were built for the expertise and knowledge of PG&E safety personnel.</p>
<p>Consider opportunities to better support non-English language speakers in reporting safety concerns. It is likely not feasible to develop a non-English language version of the app or fully non-English language ME&O materials. However, PG&E could consider developing non-English language pop-ups in the app or components to ME&O materials that direct non-English language speakers to the best resources to support them; such as the call center, which can support over 250 languages.</p>	In Part	<p>PG&E agrees the call center can best support customers in non-English languages if they have a safety concern to report. PG&E plans to look into the best places to direct non-English language speakers to call to report a safety concern (e.g., on the Report It webpage).</p> <p>PG&E does not agree that non-English language pop-ups should be put in the app.</p>	<p>Putting in-language popups in the app is not likely to be effective as the user would have gone through multiple English steps first. The key will be to put in-language callouts into webpages letting non-English speakers know they can call to report an issue in their language.</p>

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
We believe there are opportunities for the pilot staff to work with PG&E's marketing team to develop and test the efficacy of different marketing messages for outreach, education, and increased use prior to fire season and significant storms.	Yes	In PG&E's June 2023 Report It email campaign, the pilot staff is working with PG&E's marketing team to test different subject lines. The pilot staff will continue to work with the marketing team to test messages for outreach and education.	
<p>Greater customer education is warranted. The PG&E Report It response team's time for triage and processing (current review time is eight hours according to staff) will improve if PG&E can reduce the number of invalid submissions regarding non-PG&E assets. Identify which types of assets customers mistake for PG&E's. Then consider adding information to the PG&E Report It app. For example, if customers typically mistake telecom wires for power lines, add a photo or a drawing showing a pole with multiple wires, and label each one according to its ownership. We noted a diagram within the app that labels wires, but does not explicitly state which ones do not belong to PG&E.</p> <ul style="list-style-type: none"> While only 8% of total submissions were emergencies, community safety may improve if customers are better able to identify emergencies and report them properly, i.e., not via the PG&E Report It. 	Yes	PG&E plans to update the mobile app in 2023 to better educate customers on the types of concerns that should not be reported in the app (e.g., non-PG&E assets and emergencies).	On the PG&E Report It app webpage, there are videos, illustrations and education to help reduce the amount of invalid submissions. PG&E Report It mobile app (pge.com)
Customer education also includes reinforcement. We recommend using a variety of media, i.e., email, print, website, social, to remind customers, particularly prior to peak reporting periods, of what constitutes an emergency.	In Part	PG&E agrees that more customer education about what constitutes an emergency (and therefore should not be reported in the app) is warranted. However, PG&E believes this is better suited in the app and on the PG&E Report It web page and plans to update these in 2023. PG&E also supports the email channel.	Email was the most successful acquisition tactic in the pilot and it had the lowest cost per acquisition. Print had the worst response and had the highest cost per acquisition. As a result, PG&E would not recommend dedicated print campaigns as was ordered in the pilot. We believe being part of other wildfire campaigns in print would provide a better ROI vs a dedicated print piece.

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>Thank customers at large for using the app and acknowledge that customer submissions help PG&E identify and correct safety regulation violations as well as safety hazards. The fact that 86% of site visits resulted from customer reports signals to the public how important and impactful their participation is.</p>	<p>Yes</p>	<p>In PG&E's June 2023 Report It email campaign, PG&E is including an example from the app showing a safety concern that was reported and remediated.</p>	
<p>Share statistics on PG&E's website and in targeted customer communications. These should include the number of ignition risks, safety hazards and safety violations that users have reported and PG&E has resolved. This message and the above communicate PG&E accountability and are integral to reestablishing the public's trust.</p>	<p>Yes</p>	<p>PG&E plans to update the Report It web page in 2023 to include statistics and success stories from submissions through the app.</p>	

APPENDIX H. Metrics & Data Sources

Table 22 defines pilot metrics vis-à-vis CPUC decision language,²⁹ their data source, receipt status from PG&E, and assesses whether the data provided meets evaluability requirements.

Table 22. Metric to Data Source Mapping and Evaluability Assessment

Item No.	Decision Language	Metric	Meets Evaluability Requirements	Response	Report Location
1	How PG&E classified and communicated its standards to categorize whether and what type of safety issues identified	Process evaluation by consultant	Fully	Triage process documented in appendix	APPENDIX E.
2	Emergencies that instead require a 9-1-1 response	# and % of submissions that are emergencies	Fully	135 (8%)	Table 9
3	Has safety improved	# of safety issues that weren't already identified by PG&E	Fully	1,621 (43%)	Table 8
4	Are there additional enhancements that can be made to the pilot to improve safety-related services	Qualitative evaluation by consultant	Fully	Recommendations provided	Conclusions and Recommendations
5	Effectiveness at identifying safety risks	% of submissions that identify safety issues	Fully	653 (40%)	Table 8
6	Evidence of unintended consequences such as diverting safety resources from greater to lesser safety risks	# and % of submissions that do not report an ignition risk	Fully	1,266 (78%) – 22% were ignition risks.	Actual Ignition Risks
7		# and % of submissions that are emergencies	Fully	135 (8%)	Table 9
8		# and % of submissions that are outside of a HFTD	Fully	461 (28%)	Table 13
9		# and % of submissions that pertain to assets that do not belong to PG&E	Fully	281 (17%)	Table 10
10		# and % of submissions that	Partially	413 (18%)	Table 7

²⁹ Decision Approving Pacific Gas and Electric Company's Mobile Application and Supporting Systems Pilot. (2020) Cal. P. U. C. Dec. No. 20-10-003.

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M348/K578/348578954..pdf>.

Item No.	Decision Language	Metric	Meets Evaluability Requirements	Response	Report Location
		would have, even in the absence of the mobile app submittal, been identified by PG&E			
11		# and type of staff assigned to manage the mobile app and review submissions	Fully	3.5 FTE assigned to triage	Not directly mentioned. Included in cost calculations (see Comparative Costs)
12		# of submissions, categorized by type of user	Fully	89% of users were "general public"	Table 5 User Location
13	Number of safety reports (1) submitted and categorized by different types of customers, (2) with a "valid" link to a safety issue, (3) that are duplicative safety issues, (4) that result in a site visit, (5) assigned to PG&E's field-service responders, (6) that result in a site visit to address an issue apart from a safety issue, and (7) that would be more appropriately addressed by calling 9-1-1	# of submissions that are valid safety issues	Fully	653 (40%)	Table 8
14		# of submissions that are duplicates	Fully	612 (27%)	Table 7
15		# of submissions resulting in a site visit	Fully	732 (45%)	Table 17
16		# of submissions assigned to a PG&E field-service responder	Fully	732 (45%)	Table 17
17		# of submissions that result in a site visit to address an issue apart from a safety issue	Fully	3 cases concerning issues with wooden equipment	Figure 27
18		# of emergency submittals	Fully	135 (8%)	Table 9
19	Submittals that do not report an ignition risk	# and % of submissions that do not report an ignition risk	Fully	1,266 (78%) - 22% were ignition risks.	Actual Ignition Risks
20	Issues outside of a HFTD	# and % of submissions that are outside of a HFTD	Fully	461 (28%)	Table 13
21	Issues pertaining to assets that do not belong to PG&E	# and % of submissions that pertain to assets that do not belong to PG&E	Fully	281 (17%)	Table 10

Item No.	Decision Language	Metric	Meets Evaluability Requirements	Response	Report Location
22	Issues that would have, even in the absence of the mobile app submittal, been identified by PG&E	# and % of submissions that would have, even in the absence of the mobile app submittal, been identified by PG&E	Partially	413 (18%)	Table 7
23	Number of emergency submittals; the reason classified as emergency; process employed by PG&E to discourage use of app for emergencies; and process employed by PG&E to address emergencies reported via the app despite PG&E's warnings to not use for emergencies.	# of emergency submittals, process evaluation by consultant	Fully	135 (8%)	Table 9
24	How much will the pilot cost to operate in comparison to a call center	Operational cost of mobile app compared to cost to handle equivalent calls	Fully	Through 2024: estimated average \$3 million per year (app) compared to \$1 million per year (call center). App costs anticipated to decrease over time	Comparative Costs
25	How much is spent to support similar programs and whether the addition of a mobile app appears reasonable in comparison	Total cost of mobile app program per valid safety issue identified compared to call center and inspection programs	Fully	\$2,364 per app submission (2022 estimate) compared to \$2.44 per safety call to the call center.	Table 14 and Comparative Costs
26	Avoided costs (e.g., avoided loss assets, avoided service outages, avoided private property losses, avoided regulatory sanctions)	Quantitative evaluation by consultant, based on the issues that are submitted	Not evaluable	N/A	N/A
27	Estimated minutes of avoided service outage disruptions over an impacted area of service territory	Estimated total customer minutes avoided, based on average/mean customer minutes per outage for type of tag	Not evaluable	N/A	N/A

Item No.	Decision Language	Metric	Meets Evaluability Requirements	Response	Report Location
28	Estimated spillover benefits and positive externalities (e.g., improved public image and customer perception, favorable media coverage, deterrence of vandalism or theft, removal of mylar balloons from powerlines)	Qualitative evaluation by consultant	Fully	46% of user survey respondents indicated that their opinion of PG&E improved since using the Report It app.	Figure 23
29	Integration with existing complaint intake system	Process evaluation by consultant	Partially	PG&E employees and contractors found the mobile app easier and more convenient compared to existing safety reporting systems.	In Depth Interviews
30	Whether PG&E allocated sufficient resources and funding to promote the success of the app	# of people reached through ME&O	Fully	Estimated 830k across multiple ME&O tactics	ME&O Efforts
31		\$ spent per user acquired compared to other programs	Fully	Proxy: \$2,364 per app user submission. We were not able to provide an apples-to-apples comparison of PG&E Report It to another app or even a similar offering from the utility, as PG&E does not have one. Total ME&O costs included for other customer outreach programs.	ME&O Efforts, Costs subsection; also see Table 14 for proxy cost estimate
32	Outreach and training efforts, the need for additional types of training if permanently adopted	Qualitative evaluation by consultant	Fully	Recommendations provided	Conclusions and Recommendations
33	How many customers will participate in the pilot	# of unique email addresses that submitted a report	Fully	1,565	ME&O Efforts, Costs subsection
34	Extent of use by PG&E's customers and whether app is user-friendly	# of app downloads	Fully	50,990	ME&O Efforts
35		# of unique email addresses that submitted a report	Fully	1,565	ME&O Efforts, Costs subsection
36		# of issues submitted	Fully	2,233	Table 4
37		# of valid issues submitted by unique users ³⁰	Fully	1,565	ME&O Efforts, Costs subsection
38		Ease-of-use online survey	Fully	Across most app features, at least two thirds of applicable respondents	Figure 11

³⁰ Unique users are assumed to be the equivalent of unique email addresses, since a user would have to log out of the app and log back in to use a different email address when submitting a new safety report.

Item No.	Decision Language	Metric	Meets Evaluability Requirements	Response	Report Location
				found them “somewhat” or “very easy” to use.	
39		Open-ended survey questions asking for suggestions ³¹	Fully	Most user suggestions were related to more streamlined and open communication with PG&E about the resolution of the safety report they submitted, making the process of uploading photos and videos easier, and increasing advertisement of the app to spread its use.	App Improvement
40	Benefits of including a tracking system feature for customers to identify detailed status of submittal while PG&E processes and addresses the submittal	Survey of users	Fully	Most active users have taken advantage of the ability to track the status of their safety report and find the tracking features useful.	Submittal Tracking Feature
41		Avoided calls	Partially	51% of surveyed users indicated they would have been “somewhat” or “very” likely to communicate their most recent safety concern without the app.	Figure 20
42	Extent of use by CAL FIRE, cable companies, telecommunication providers, and PG&E vegetation management consultants	% of submissions by entities	Fully	172 (11%)	Table 5
43	Lessons learned from pilot	Qualitative evaluation by consultant	Fully	Documented throughout the report	Conclusions and Recommendations

³¹ As noted earlier, survey responses indicating customer preferences for non-safety related features will not alone provide sufficient evidence to compel their development. While further exploration would be necessary, it is out of scope for this evaluation.



Opinion **Dynamics**

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EXHIBIT B

Table 1. PG&E Response to Recommendations

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>We recommend that the PG&E Report It mobile app be elevated out of pilot status to become a permanent PG&E electric safety program.</p>	<p>Yes</p>	<p>PG&E plans to make PG&E Report It a permanent program (elevated out of pilot status).</p>	
<p>As a part of the transition, we recommend that PG&E make available the resources necessary to optimally expand the mobile app's reach throughout PG&E's electric service territory.</p>	<p>In Part</p>	<p>PG&E is currently evaluating the recommended approach for a system-wide program.</p>	<p>PG&E has always allowed and will continue to allow customers throughout the territory to submit tickets, which is above and beyond the requirements of the Phase I decision. PG&E has not actively marketed the program outside of Tier 2 and Tier 3 areas to date as these are not the highest risk areas.</p> <p>PG&E plans to continue to focus program marketing efforts on customers in Tier 2 and Tier 3 High Fire Threat Districts (HFTDs). PG&E plans to continue to allow anyone outside of Tier 2 and Tier 3 HFTDs to submit a concern through the app if they register first.</p>

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>We encourage a robust ME&O campaign that encourages both awareness of wildfire prevention and how to correctly distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app.</p>	<p>In Part</p>	<p>PG&E has robust wildfire prevention ME&O. The PG&E Report It program is included in wildfire prevention ME&O, such as the Wildfire Safety Webinars. PG&E plans to update the instructions in the app and on the PG&E Report It web page for further clarity on how to distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app in 2023. PG&E does not agree that an ME&O campaign is the right channel to educate customers on how to distinguish between emergencies.</p>	<p>PG&E believes that education around how to correctly distinguish between emergencies is likely to be most useful in the app and on the PG&E Report It web page. The customer is most likely to be engaged at those two points. It's also information they need to know at the point of submission.</p>
<p>In preparation for any future evaluations, build on existing partnerships across the utility (e.g., call center, risk management, marketing) to address the specific data and evaluability gaps we outline in the Metric to Data Source Mapping and Evaluability Assessment table.</p>	<p>Yes</p>	<p>PG&E plans to build on existing partnerships across the utility to address the specific data and evaluability gaps outlined in the Metric to Data Source Mapping and Evaluability Assessment table.</p>	
<p>Make raw data easily accessible to key staff, e.g., triage lead and product manager, who manage distinct aspects of the app, to support future evaluations.</p>	<p>Yes</p>	<p>PG&E plans to continue to make raw data easily accessible to key staff.</p>	<p>PG&E believes this information is already easily accessible to key staff. Raw data includes personal data, including Sensitive Personal Information, so access is restricted to individuals with a business need.</p> <p>Data without Sensitive Personal Information is shared more broadly through a dashboard that is updated daily.</p>

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
Leverage the lessons learned and processes developed to provide data for this evaluation to streamline future data requests. Providing data for this evaluation was challenging due to the specific metric definitions, in that it required pulling data from multiple sources, across several departments, into new kinds of reports or formats in order to address specific evaluation metrics. Keep these processes in place, such that PG&E can quickly refresh and distribute this data more efficiently upon request.	Yes	PG&E is keeping the processes in place to retrieve data that were developed during the evaluation so that data can be quickly refreshed and distributed.	
Continue with plans to make additional improvements prior to scaling the app to more users or geographies; and maintain robust feedback monitoring processes.	Yes	PG&E plans to continue to make improvements to the app before scaling the app to more users or geographies. This includes a code refactor (in progress), updating internal tools for tracking and processing submissions, and updating the mobile app experience to better educate customers on the types of concerns to submit through the mobile app. PG&E plans to maintain our robust feedback monitoring process.	
Track or rank multiple data points in combination, such as ignition risks with location data, equipment, and labor costs to increase the utility's understanding of the full benefits and costs of ignition avoidance.	Yes	PG&E plans to include more data science and analytics around ignition risk/avoidance.	
Determine if the app's programming could support a map-based alert for any report submissions pertaining to Tier 1 High Hazard Zones (HHZ) (i.e., the areas with the highest risk of wildfire) that encourages the user immediately call 9-1-1 if the issue is an emergency.	No	None	PG&E does not agree with this recommendation. The location of the issue does not pre-determine if it is an emergency or non-emergency.
Continue to support the PG&E Report It for both Android and Apple iPhone platforms.	Yes	PG&E plans to continue to support the app on both Android and Apple platforms.	PG&E is currently exploring whether a mobile-friendly webpage would get more use and should be considered in place of a mobile app.

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>Continue to track and identify duplicate submissions along with who is providing duplicate submissions and when they are submitted. There is an important distinction between a safety concern that is reported by more than one user and one that is already known to PG&E. The former indicates a degree of customer awareness and concern, e.g., multiple people alerting PG&E to the same issue. This could help PG&E, over time, better understand user behavior. Ideally, duplicates will come from multiple users rather than a single user providing multiple submission for the same issue, i.e., misusing the app or worrying their report was not received.</p>	<p>Yes</p>	<p>PG&E plans to continually improve the data and quality of the data collected. Improvements are being implemented within the database to clearly track each submission type uniquely.</p>	

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>There are opportunities for PG&E to look at not just their own processes, but also the customer pathway within the app and the pilot as a whole. For example:</p> <ul style="list-style-type: none"> ▪ PG&E may wish to remind customers to check their SPAM folders when expecting a reply to their submission, and then assess if users are more satisfied with PG&E's response. ▪ More description or explanation regarding submission resolution may satisfy customers' need to feel their concern was adequately addressed; for example, if a report is closed, provide more detail as to why. <p>Users may believe they are using offline mode when they are not; this also warrants further exploration of the customer journey.</p>	Yes	<p>PG&E agrees that there are opportunities to improve the customer experience, including:</p> <ul style="list-style-type: none"> ▪ Reminding customers to check for updates in their SPAM and Junk email folders ▪ Improving explanations for why a report is closed ▪ Examining the offline mode and how often it is utilized ▪ Adding a survey link to PG&E response emails to collect feedback on the response process <p>PG&E plans to do this in 2023.</p>	
<p>The majority of submissions (85%) are from the general public. If PG&E plans to encourage use by other groups (such as road crew workers), then targeted outreach (in addition to its pilot phase presentations) is warranted. Additionally, we would also anticipate PG&E working with its own safety personnel or partners to incorporate the PG&E Report It into any existing protocols for reporting. This would necessitate PG&E partners confirming their own interest and the feasibility of integrating the app into their own systems. We do not, at this stage, have enough data to determine the potential of safety personnel incorporating PG&E Report It into their work. However, we do believe these individuals could be influencers in their own communities and if familiar with the app – and satisfied with it – could serve as a valuable referral.</p>	No	None	<p>When PG&E conducted outreach and education to vegetation management contractors and joint-pole partners, they expressed a preference for their existing reporting processes. They did not see a need to use PG&E Report It.</p> <p>PG&E's own safety personnel (the System Inspections team) use an internal app to report safety concerns. The internal app is better suited for the System Inspections team to use because the internal app and associated processes were built for the expertise and knowledge of PG&E safety personnel.</p>

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>Consider opportunities to better support non-English language speakers in reporting safety concerns. It is likely not feasible to develop a non-English language version of the app or fully non-English language ME&O materials. However, PG&E could consider developing non-English language pop-ups in the app or components to ME&O materials that direct non-English language speakers to the best resources to support them; such as the call center, which can support over 250 languages.</p>	<p>In Part</p>	<p>PG&E agrees the call center can best support customers in non-English languages if they have a safety concern to report. PG&E plans to look into the best places to direct non-English language speakers to call to report a safety concern (e.g., on the Report It webpage).</p> <p>PG&E does not agree that non-English language pop-ups should be put in the app.</p>	<p>Putting in-language popups in the app is not likely to be effective as the user would have gone through multiple English steps first. The key will be to put in-language callouts into webpages letting non-English speakers know they can call to report an issue in their language.</p>
<p>We believe there are opportunities for the pilot staff to work with PG&E's marketing team to develop and test the efficacy of different marketing messages for outreach, education, and increased use prior to fire season and significant storms.</p>	<p>Yes</p>	<p>In PG&E's June 2023 Report It email campaign, the pilot staff is working with PG&E's marketing team to test different subject lines. The pilot staff will continue to work with the marketing team to test messages for outreach and education.</p>	
<p>Greater customer education is warranted. The PG&E Report It response team's time for triage and processing (current review time is eight hours according to staff) will improve if PG&E can reduce the number of invalid submissions regarding non-PG&E assets. Identify which types of assets customers mistake for PG&E's. Then consider adding information to the PG&E Report It app. For example, if customers typically mistake telecom wires for power lines, add a photo or a drawing showing a pole with multiple wires, and label each one according to its ownership. We noted a diagram within the app that labels wires, but does not explicitly state which ones do not belong to PG&E.</p> <ul style="list-style-type: none"> ▪ While only 8% of total submissions were emergencies, community safety may improve if customers are better able to identify emergencies and report them properly, i.e., not via the PG&E Report It. 	<p>Yes</p>	<p>PG&E plans to update the mobile app in 2023 to better educate customers on the types of concerns that should not be reported in the app (e.g., non-PG&E assets and emergencies).</p>	<p>On the PG&E Report It app webpage, there are videos, illustrations and education to help reduce the amount of invalid submissions. PG&E Report It mobile app (pge.com)</p>

Recommendation	Does PG&E agree with this recommendation?	PG&E's Planned Actions	PG&E's Notes
<p>Customer education also includes reinforcement. We recommend using a variety of media, i.e., email, print, website, social, to remind customers, particularly prior to peak reporting periods, of what constitutes an emergency.</p>	<p>In Part</p>	<p>PG&E agrees that more customer education about what constitutes an emergency (and therefore should not be reported in the app) is warranted. However, PG&E believes this is better suited in the app and on the PG&E Report It web page and plans to update these in 2023. PG&E also supports the email channel.</p>	<p>Email was the most successful acquisition tactic in the pilot and it had the lowest cost per acquisition. Print had the worst response and had the highest cost per acquisition. As a result, PG&E would not recommend dedicated print campaigns as was ordered in the pilot. We believe being part of other wildfire campaigns in print would provide a better ROI vs a dedicated print piece.</p>
<p>Thank customers at large for using the app and acknowledge that customer submissions help PG&E identify and correct safety regulation violations as well as safety hazards. The fact that 86% of site visits resulted from customer reports signals to the public how important and impactful their participation is.</p>	<p>Yes</p>	<p>In PG&E's June 2023 Report It email campaign, PG&E is including an example from the app showing a safety concern that was reported and remediated.</p>	
<p>Share statistics on PG&E's website and in targeted customer communications. These should include the number of ignition risks, safety hazards and safety violations that users have reported and PG&E has resolved. This message and the above communicate PG&E accountability and are integral to reestablishing the public's trust.</p>	<p>Yes</p>	<p>PG&E plans to update the Report It web page in 2023 to include statistics and success stories from submissions through the app.</p>	

EXHIBIT C



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Summary of the Draft Report on the Evaluation Study completed at the direction of the California Public Utilities Commission as part of rulemaking
A.19-07-019 | PG&E Safety Reporting Mobile App

sponsored by

**Pacific Gas and Electric
Company (PG&E)**

June 30, 2023



Opinion **Dynamics**

INTRODUCTION

'PG&E Report It' Mobile App Background

- Pilot effort, app made publicly available July 2021
- Developed at the direction of the California Public Utilities Commission (CPUC)¹ with the following goals:
 - Prevent wildfires
 - Enhance electric utility safety
 - Ensure grid resiliency and reliability
- Enables customers to conveniently and rapidly report potential safety issues
 - Intended for use in non-emergencies with PG&E electric assets only
- Provides an alternative to the PG&E call center
 - Additional functionality allows users to track responses to issues
 - Increases public accountability

¹ [Decision \(D.\) 20-10-003](#)

Evaluation Objectives

- Evaluation occurred March 2022 to March 2023
 - Covered pilot activity from July 2021 through February 2023
 - 50,000 net downloads and more than 2,000 safety reports (“submissions”) during that timeframe
- Key areas
 - Pilot evaluability
 - Feedback from pilot staff and internal contractors (“**PG&E staff**”)
 - Feedback from PG&E employees and contractors who used the app (“**stakeholders**”)
 - Customer perception of marketing, education, and outreach (ME&O)
 - User experience
 - Nature of safety reports submitted
 - Cost analysis

Summary of Evaluation Methods

Summary of Research Tasks

Research Task	Description
Evaluability Assessment	Examined available data to determine if they are sufficient to answer questions posed in the CPUC Decision.
PG&E Staff Interviews	Met with PG&E staff to learn how the app works, what its management entails, and staff perception of app performance.
ME&O Survey	Surveyed 378 customers targeted with ME&O promoting the app. Example topics included app awareness, ME&O efficacy, and motivations and barriers to downloading.
User Survey	Surveyed 261 customers who downloaded and/or used the app. Example topics included use of specific features, user experience, suggestions for improvement, and additional app benefits.
Stakeholder Interviews	Conducted one-on-one interviews with 11 stakeholders to assess if and how they used the app in their jobs and how it compares to other safety reporting systems.
App Tracking Analytics	Analyzed safety report data to understand how customers and stakeholders are using PG&E Report It, and the degree to which the app is helping PG&E prevent wildfire.
Cost Analysis	Compared PG&E Report It expenses to the call center and PG&E’s other wildfire prevention programs.



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KEY FINDINGS

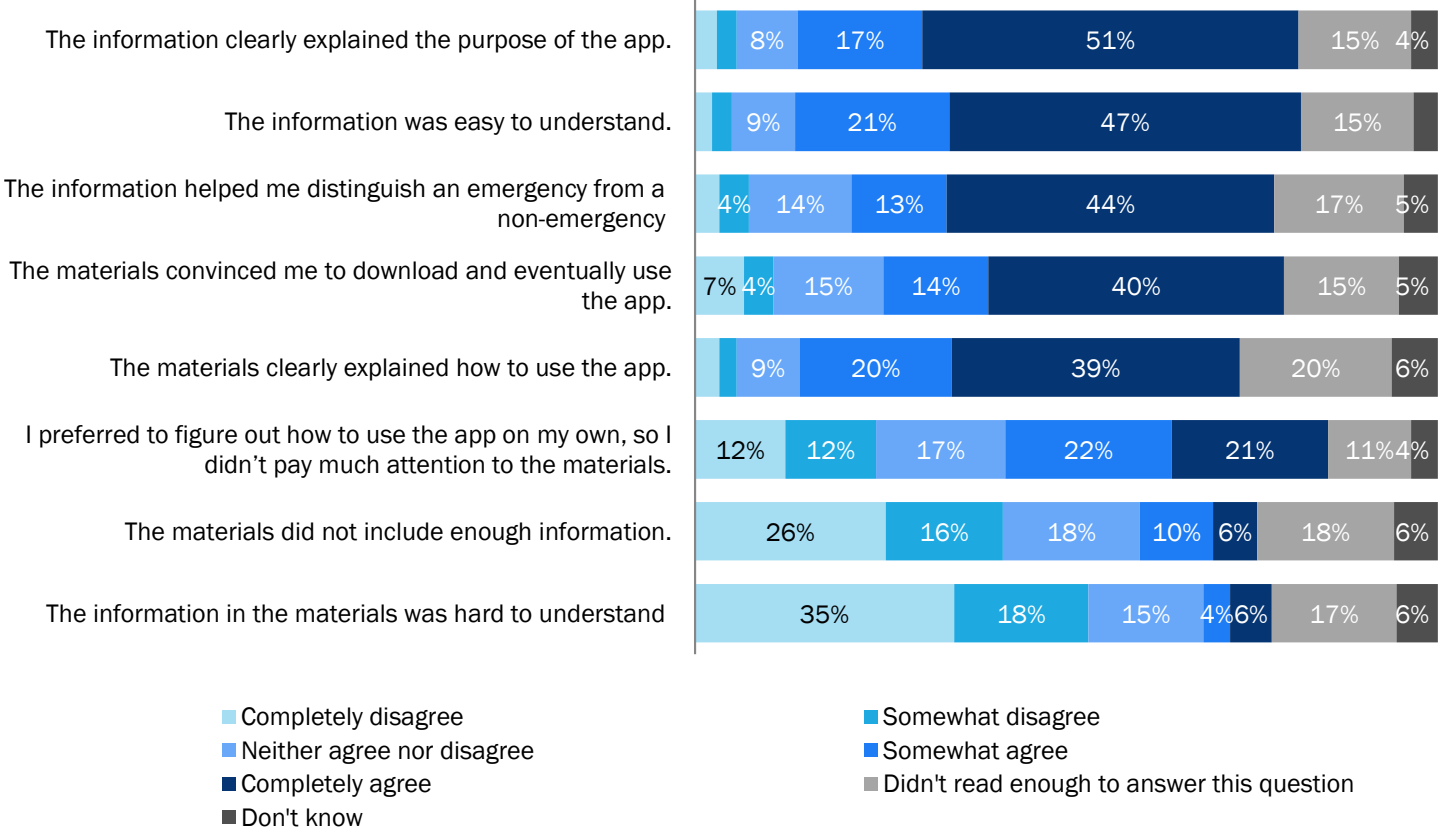
Evaluability Assessment

- The pilot is evaluable
 - The data is sufficient for measuring performance against most metrics
 - 29 of 34 metrics were fully evaluable
- Three metrics were partially evaluable (limited, but some data)
 - Number of submissions that would have been identified by PG&E without the app
 - Level of integration with existing complaint intake system
 - Number of avoided calls to the call center
- Two metrics were not evaluable (no direct data available; speculative)
 - Avoided costs
 - Avoided service outage

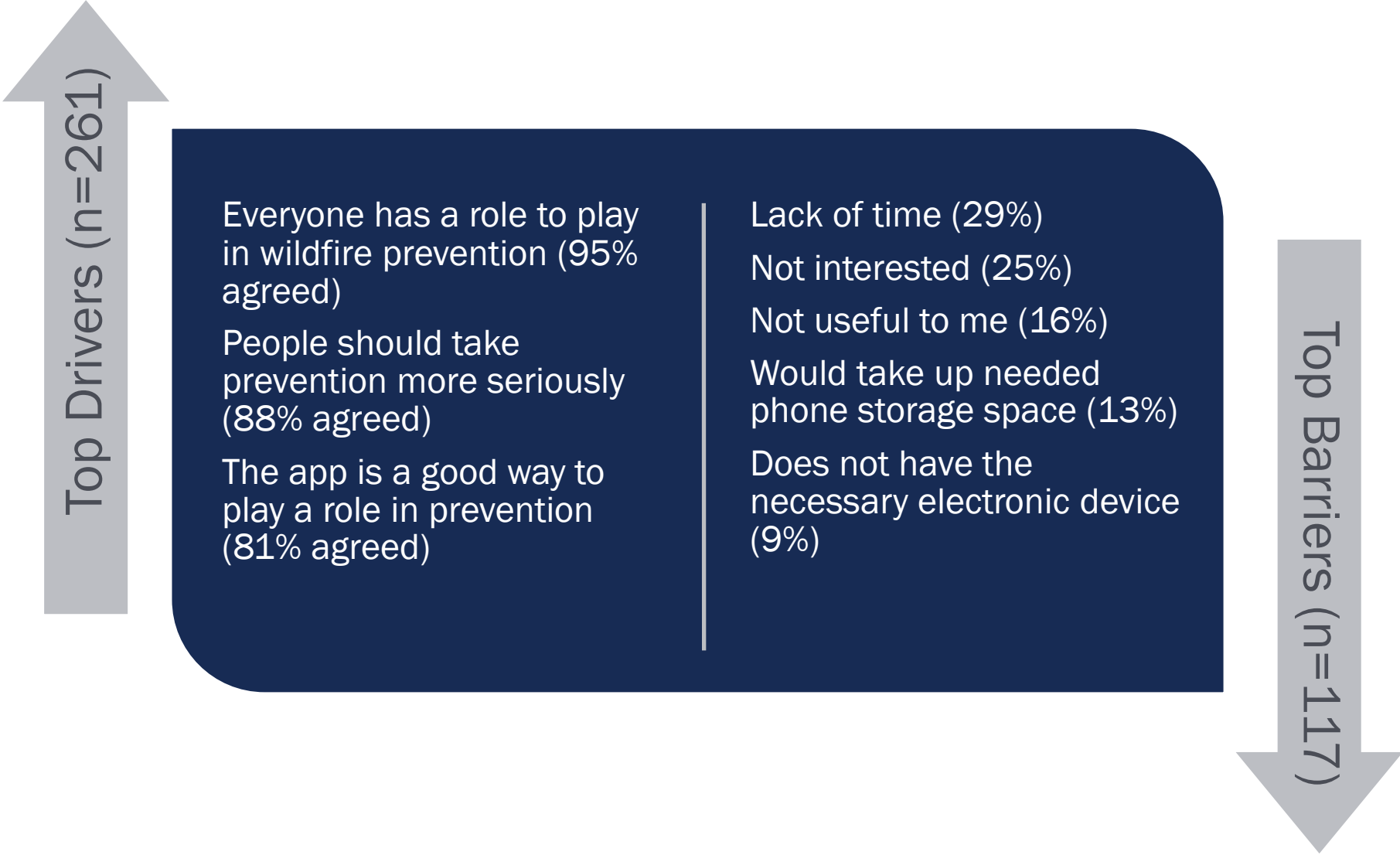
ME&O Effectiveness (ME&O Survey)

- Email was the most effective ME&O tactic
 - Most common source of app awareness (60%)
 - Most influential driver of downloads (61%)
- Most respondents found that the ME&O materials:
 - Were easy to understand
 - Clearly explained app use
 - Convinced them to download

Customer Feedback on PG&E’s ME&O Materials (n=304)



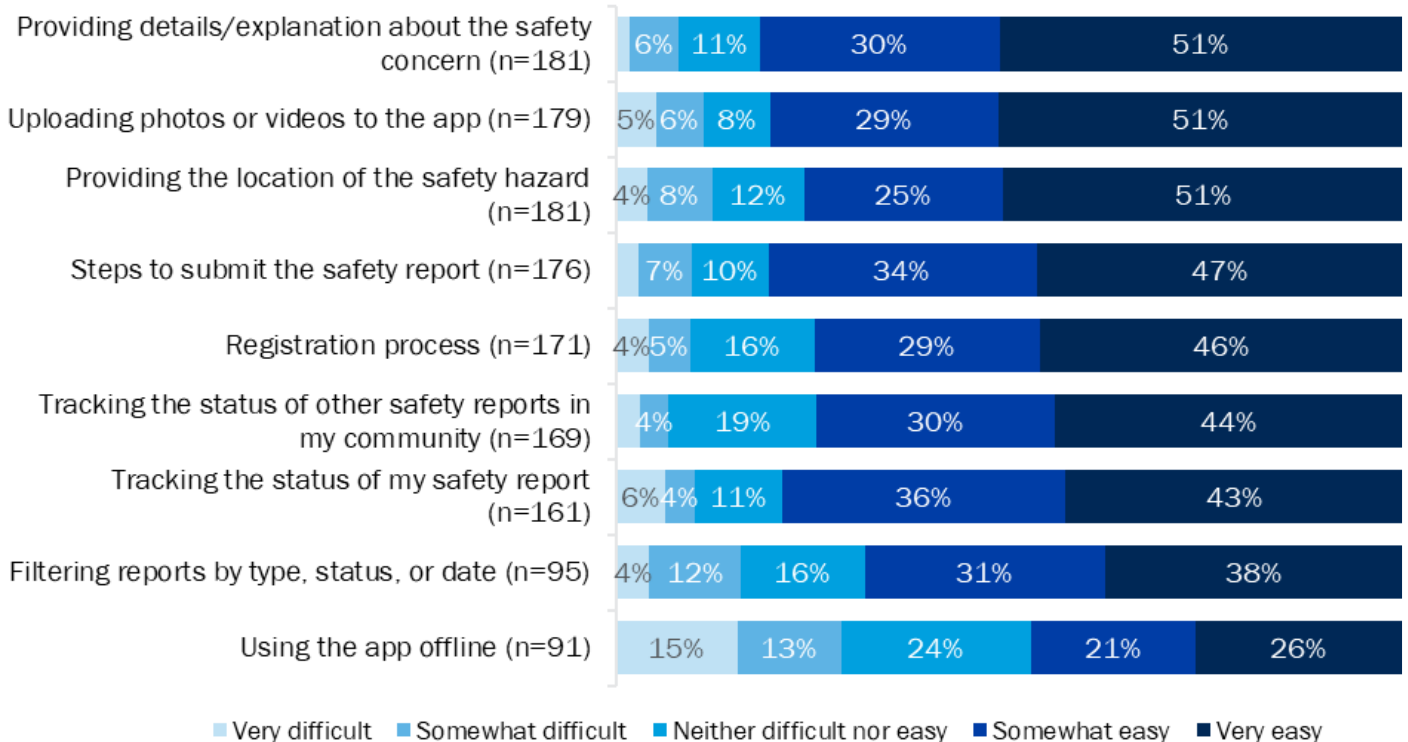
Drivers and Barriers to App Download (ME&O Survey)



App Usability (User Survey)

- High user satisfaction overall (76% were satisfied). Highlights were:
 - Time to download and use the app
 - Uploading photos
 - Instructions available
 - Map/location features
- Most respondents said app was easy to use
 - Two thirds or more across most features (see right)

Usability of PG&E Report It Features



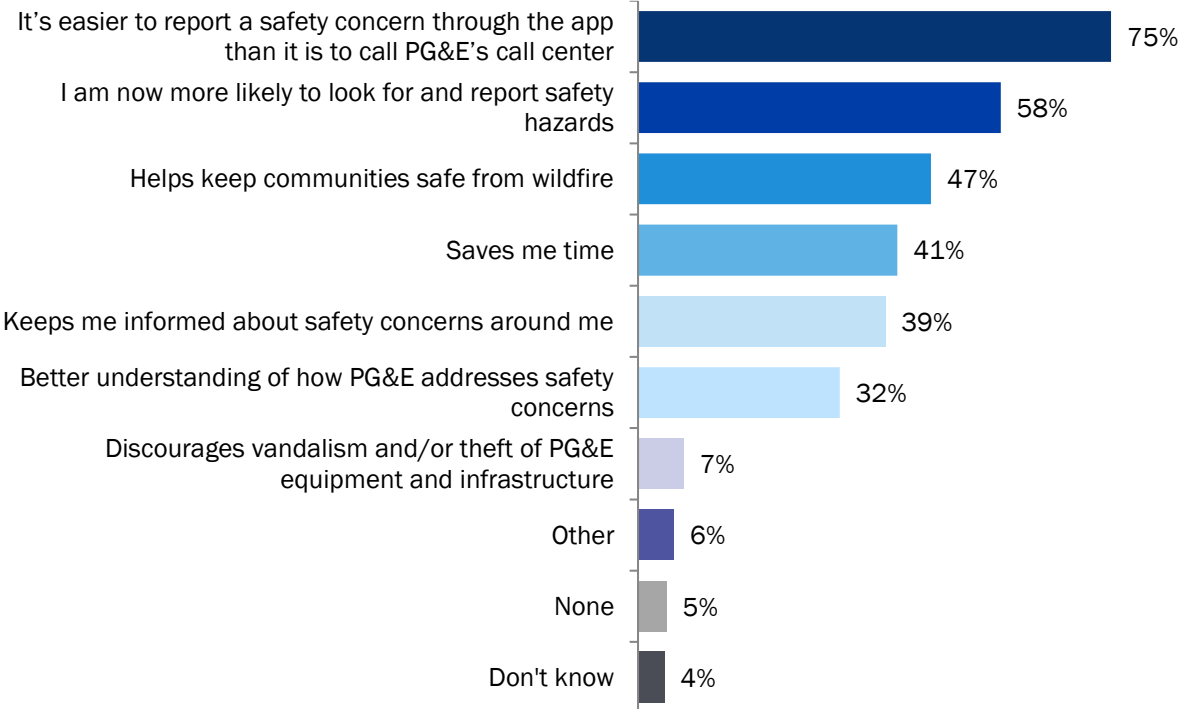
Top Suggestions for Improvement (User Survey)

- PG&E response and customer engagement (38 mentions)
 - Quicker response to reported issues
 - Provide more realistic timelines for resolution
 - Increase notifications about status changes
 - Provide phone number if help with app or follow-up on a report is needed
- Photo, video, and location app features (36 mentions)
 - Being able to add photos from a saved location later
 - Less stringent upload requirements
 - More flexibility for reporting issue location

Additional App Benefits (User Survey)

- The app “recruited” new customers to be vigilant around safety hazards
 - 60% had not communicated any safety concerns before using PG&E Report It
 - 43% said it was unlikely they would have submitted a report without the app
- 75% said the app was easier than using the call center
- 46% said their opinion of PG&E improved since using the app

Benefits of PG&E Report It (n=261)



Stakeholder Feedback

- Positive reception overall
 - 10 of 11 plan to use the app in the future, recommended to friends and family
- Stakeholders directly responsible for reporting safety issues while on the job used their designated standard protocols, when available
 - Mobile App useful when “off the job”, with non-urgent concerns
- Advantages compared to other reporting methods:
 - Convenient, saves times
 - Photographic documentation
 - Specific location feature
 - Ability to see reports in real time
- Potential disadvantages compared to the call center
 - Less immediate response compared to a live person
 - Harder for those less tech savvy
 - Verbal description may be easier/clearer in some cases

Stakeholder Interview Respondents (n=11)

Employer	Job Title
PG&E	Electric Management
PG&E	Construction Team Analyst
PG&E	Electric Estimator
PG&E	Attorney
PG&E	Mechanical Engineer
PG&E	Land Surveyor
PG&E	Project Manager for Access
PG&E	Public Safety Specialist
PG&E	Senior Electric Mapping Technician
Not PG&E	Flagger
Not PG&E	Line Inspector

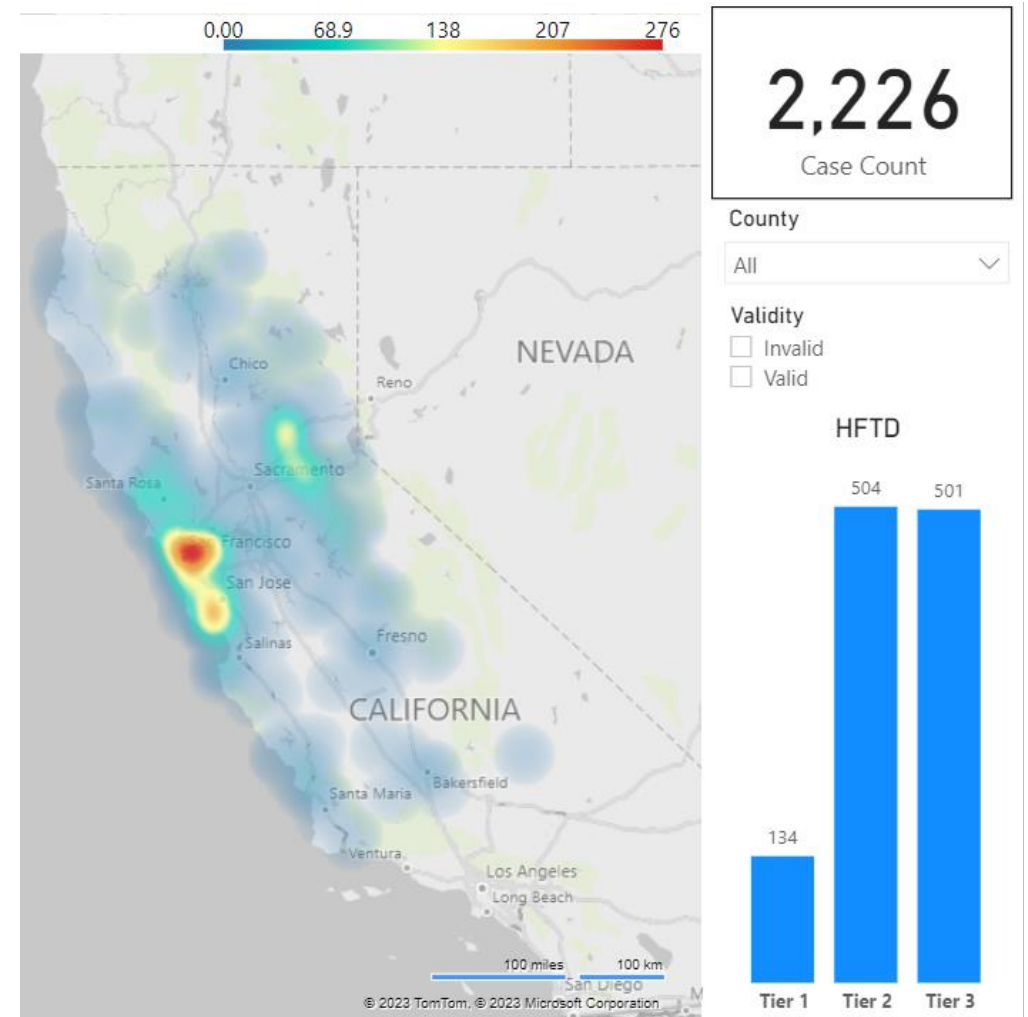
Proper App Usage (App Tracking Analytics)

- 1,621 (73%) were unique submissions not already known to PG&E
 - The rest were “duplicative”(i.e., already known to PG&E)
- Over 1,000 (65%) were valid submissions (i.e., were appropriate use of app)
 - Related to PG&E’s electrical equipment
 - Non-emergencies
- Over 600 (40%) represented valid safety concerns
 - Over 350 (22%) were specifically ignition risks
- Invalid submissions (i.e., did not meet Decision compliance guidelines)
 - 51% were related to non-PG&E assets
 - 25% were emergencies (requiring either a 9-1-1 call or immediate response from PG&E)

User Location (App Tracking Analytics)

- Nearly half of valid submissions (42%) came from outside High Fire Threat Districts (HFTD)
 - App available to all, but targeted to HFTD Tier 2 (elevated risk) and Tier 3 (extreme risk)
- Few reports submitted from Tier 1 High Hazard Zones (HHZ)
 - Highest risk areas
 - Any risk should be reported to 9-1-1

Heat Map of Submissions in Evaluation Period



Comparative Costs (Cost Analysis)

- The app and associated pilot activities cost approximately \$3 million annually in 2021 and 2022
 - Includes development, outreach, launch, maintenance, and triage
- Compare annual costs to:
 - Nearly \$2 billion in Vegetation Management
 - \$1 million for call center calls related to safety (estimated)
- The app is more expensive per report compared to the call center
 - App: \$2,300 per submission
 - Call Center: \$2.44 per safety-related call

Avoided Costs (Cost Analysis)

- Two key benefits could not be monetized based on data available and the speculative nature of what could have happened
 - Avoided costs of wildfires or public safety incidents
 - Avoided costs to the call center
- Relevant facts for consideration
 - Any of the 350+ actual ignition risks could have sparked a wildfire
 - Liabilities from lawsuits for bigger fires can range in the hundreds of millions to billions of dollars
 - The estimated cost of the Camp Fire was \$422 billion
 - PG&E has paid \$5 billion into the PG&E Fire Victims Trust to-date



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CONCLUSIONS AND RECOMMENDATIONS

Key Conclusions

This study concluded that the Report It Mobile App:

- Is effective at preventing wildfires and improving public safety.
- Encourages customers to be vigilant against safety concerns.
- Provides a quality user experience.
- Is typically used correctly, but merits further education.
- Is provided at a reasonable cost for the benefits provided.

Recommendations – Overall

- We recommend that the PG&E Report It mobile app be elevated out of pilot status to become a permanent PG&E electric safety program.
- As a part of the transition, we recommend that PG&E make available the resources necessary to optimally expand the mobile app's reach throughout PG&E's electric service territory.

Recommendations – Ongoing Management

- Work across the utility (e.g., call center, risk management, marketing) to address data and evaluability gaps in preparation for any future evaluations.
- Make raw data easily accessible to key staff within the PG&E Report It pilot team.
- Leverage lessons learned and processes developed during this evaluation to streamline future data requests.

Recommendations – Programming and Processes

- Continue with plans to make additional improvements prior to scaling the app to more users or geographies.
- Track and/or rank ignition risks using location data, equipment, and labor costs to better understand app benefits.
- Determine if the app's programming could support a map-based user alert for Tier 1 HHZs that encourages the user to call 9-1-1 in potential emergencies.
- Continue to support the PG&E Report It for both Apple and Android platforms.

Recommendations – User Behavior

- Continue to track and identify duplicate submissions along with who is providing duplicate submissions (e.g., single versus multiple users) to understand the root causes of this behavior.
- Consider a few potential opportunities to improve user experience and satisfaction.
 - Reminders for customers to check their “spam” folders
 - Providing more explanation regarding submission resolution
 - Alerts related to being in online or offline mode

Recommendations – ME&O

- If PG&E plans to encourage use by stakeholders other than the general public (e.g., PG&E employees, contractors, and partners), then targeted outreach is warranted.
- Consider opportunities to better support non-English language speakers in reporting safety concerns, either through the app or the call center.
- Consider additional message testing for outreach, education, and increased use prior to fire season and significant storms.
- Identify which types of assets customers often mistake for PG&E's. Then consider adding information to the PG&E Report It app.
- Use a variety of media to remind customers of the app and reinforce usage behavior.
- Thank customers at large for using the app and acknowledge that customer submissions help PG&E.
- Share statistics on PG&E's website about the number of ignition risks, safety hazards, and safety violations that users have reported and PG&E has resolved.

For more

- The evaluation report in draft and final versions are expected to be made available within the docket card for rulemaking A.19-07-019 at <https://apps.cpuc.ca.gov/apex/f?p=401:1:0>

The evaluation report in draft and final versions will also be made available on the CPUC Safety Policy Division's Mobile App Oversight homepage at <https://www.cpuc.ca.gov/about-cpuc/divisions/safety-policy-division/risk-assessment-and-safety-analytics/cpuc-regulatory-oversight-of-pg-and-e-mobile-app-pilot-effort>

- Additionally, the evaluation report will be posted to the state depository for the energy evaluation body of knowledge as maintained by the **California Measurement Advisory Council (CALMAC)** at www.calmac.org



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For more information please contact:

Alan Elliott, Director

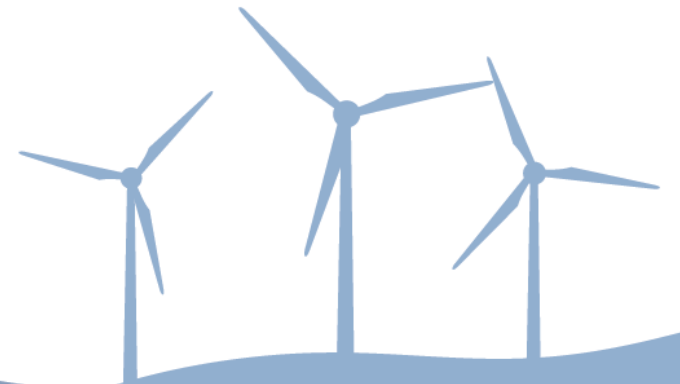
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EXHIBIT D

Mobile App Pilot: PG&E's Response to Recommendations

June 2023



Together, Building
a Better California



Executive Summary

PG&E agrees with many of Opinion Dynamics' recommendations on how to improve the Report It mobile app program. This year, PG&E plans to implement many of the recommendations, including:

- **Establishing Report It as a permanent program.** PG&E is currently evaluating the recommendation for expanding the program system-wide
- **Enhancing Marketing, Education, and Outreach** to share successes from the pilot and to better educate customers on the types of issues that should not be submitted through the app
- **Improving the customer experience** (i.e., helping customers understand when and why a report is closed; adding more options to provide feedback)
- **Improving data accessibility, tracking, and analytics** to better understand full benefits of the program



Establish a Permanent Program


- PG&E will establish Report It as a permanent program. PG&E is currently evaluating the recommendation for expanding the program system-wide.
 - PG&E has always allowed and will continue to allow customers throughout the territory to submit tickets.*
 - PG&E will continue to market the program towards customers in Tier 2 and Tier 3 High Fire Threat Districts (HFTDs).
 - PG&E plans to continue to allow anyone outside of Tier 2 and Tier 3 HFTDs to submit a concern through the app if they register first.
- PG&E plans to continue to support the app on both Android and Apple platforms.
 - PG&E is also currently exploring whether a mobile-friendly webpage would get more use and should be considered in place of a mobile app.

**Per Decision 20-10-003, “The customer base and geographic area to be targeted by PG&E’s mobile app pilot should include all customers in Tier 2 and Tier 3 HFTDs, which represent a large portion of PG&E’s total service territory and a sufficient area to conduct the pilot.” PG&E chose to allow anyone outside of Tier 2 and Tier 3 HFTDs to submit a concern during the pilot, if they registered first.*



Enhance Marketing, Education, and Outreach (ME&O)

- In PG&E's June 2023 marketing email to customers in Tier 2 and Tier 3, PG&E incorporated several of Opinion Dynamics' recommendations including:
 - Testing different email subject lines
 - Acknowledging that customer submissions help PG&E keep communities even safer
- PG&E also plans to update the Report It webpage this year with Opinion Dynamics' recommendations, including:
 - Sharing statistics demonstrating the effectiveness of the pilot, as well as success stories from submissions made through the mobile app
 - Acknowledging that customer submissions help PG&E keep communities even safer
 - Education around how to distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app.




Report your non-emergency safety concerns with the Report It mobile app [GET OUR APP »](#)

With **Report It**, you can help us prevent wildfires.


The goal of the Report It app is simple: to allow anyone to easily submit photos of non-emergency electrical equipment safety concerns for PG&E to review.

Thank you for working with us to help keep communities even safer

We use drones, helicopters, cameras and more to inspect our equipment. Since launching Report It, we've received more than 2,000 submissions. Your submission on the Report It app can help make the system even safer.



Before: Large woodpecker holes



After: A new pole was installed

Improve the Customer Experience

- PG&E also plans to update the Report It webpage this year with Opinion Dynamics' recommendations, including:
 - Updating the mobile app to better educate customers on the types of concerns that should not be reported in the app (e.g., non-PG&E assets and emergencies)
 - Reminding customers to check for updates in their Spam and Junk email folders
 - Improving explanations for why a report is closed
 - Examining the offline mode and how often it is utilized
 - Improving the app and program before scaling to more users or geographies (e.g., code refactor and updating internal tools for tracking and processing submissions)
 - Adding a survey link to PG&E response emails to collect feedback on the response process
 - Maintaining robust feedback monitoring process





Improve Data Accessibility, Tracking, and Analytics

- PG&E is leveraging the lessons learned and processes developed from the evaluation to streamline future data requests.
 - PG&E is keeping the processes in place to retrieve data that were developed during the evaluation so that data can be quickly refreshed and distributed.
- PG&E agrees with Opinion Dynamics' recommendations to:
 - Track or rank multiple data points to better understand the full benefits and costs of ignition avoidance. PG&E plans to include more data science and analytics around ignition risk/avoidance.
 - Continue to track and identify duplicate submissions along with who is providing duplicate submissions and when they are submitted.

Appendix



Together, Building
a Better California



Recommendations that PG&E partially agrees with

Recommendation	Does PG&E agree with this recommendation?	PG&E's planned actions	PG&E's notes
As a part of the transition, we recommend that PG&E make available the resources necessary to optimally expand the mobile app's reach throughout PG&E's electric service territory.	In Part	PG&E is currently evaluating the recommended approach for a system-wide program.	<p>PG&E has always allowed and will continue to allow customers throughout the territory to submit tickets, which is above and beyond the requirements of the Phase I decision. PG&E has not actively marketed the program outside of Tier 2 and Tier 3 areas to date as these are not the highest risk areas.</p> <p>PG&E plans to continue to focus program marketing efforts on customers in Tier 2 and Tier 3 High Fire Threat Districts (HFTDs). PG&E plans to continue to allow anyone outside of Tier 2 and Tier 3 HFTDs to submit a concern through the app if they register first.</p>
We encourage a robust ME&O campaign that encourages both awareness of wildfire prevention and how to correctly distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app.	In Part	<p>PG&E has robust wildfire prevention ME&O. The PG&E Report It program is included in wildfire prevention ME&O, such as the Wildfire Safety Webinars.</p> <p>PG&E plans to update the instructions in the app and on the PG&E Report It web page for further clarity on how to distinguish between emergencies that require calls to 9-1-1 and non-emergencies suitable for the app in 2023. PG&E does not agree that an ME&O campaign is the right channel to educate customers on how to distinguish between emergencies.</p>	PG&E believes that education around how to correctly distinguish between emergencies is likely to be most useful in the app and on the PG&E Report It web page. The customer is most likely to be engaged at those two points. It's also information they need to know at the point of submission.



Recommendations that PG&E partially agrees with

Recommendation	Does PG&E agree with this recommendation?	PG&E's planned actions	PG&E's notes
Consider opportunities to better support non-English language speakers in reporting safety concerns. It is likely not feasible to develop a non-English language version of the app or fully non-English language ME&O materials. However, PG&E could consider developing non-English language pop-ups in the app or components to ME&O materials that direct non-English language speakers to the best resources to support them; such as the call center, which can support over 250 languages.	In Part	<p>PG&E agrees the call center can best support customers in non-English languages if they have a safety concern to report. PG&E plans to look into the best places to direct non-English language speakers to call to report a safety concern (e.g., on the Report It webpage).</p> <p>PG&E does not agree that non-English language pop-ups should be put in the app.</p>	Putting in-language popups in the app is not likely to be effective as the user would have gone through multiple English steps first. The key will be to put in-language callouts into webpages letting non-English speakers know they can call to report an issue in their language.
Customer education also includes reinforcement. We recommend using a variety of media, i.e., email, print, website, social, to remind customers, particularly prior to peak reporting periods, of what constitutes an emergency.	In Part	PG&E agrees that more customer education about what constitutes an emergency (and therefore should not be reported in the app) is warranted. However, PG&E believes this is better suited in the app and on the PG&E Report It web page and plans to update these in 2023. PG&E also supports the email channel.	Email was the most successful acquisition tactic in the pilot and it had the lowest cost per acquisition. Print had the worst response and had the highest cost per acquisition. As a result, PG&E would not recommend dedicated print campaigns as was ordered in the pilot. We believe being part of other wildfire campaigns in print would provide a better ROI vs a dedicated print piece.



Recommendations that PG&E disagrees with

Recommendation	Does PG&E agree with this recommendation?	PG&E's planned actions	PG&E's notes
Determine if the app's programming could support a map-based alert for any report submissions pertaining to Tier 1 High Hazard Zones (HHZ) (i.e., the areas with the highest risk of wildfire) that encourages the user immediately call 9-1-1 if the issue is an emergency.	No	None	PG&E does not agree with this recommendation. The location of the issue does not pre-determine if it is an emergency or non-emergency.
<p>The majority of submissions (85%) are from the general public. If PG&E plans to encourage use by other groups (such as road crew workers), then targeted outreach (in addition to its pilot phase presentations) is warranted. Additionally, we would also anticipate PG&E working with its own safety personnel or partners to incorporate the PG&E Report It into any existing protocols for reporting. This would necessitate PG&E partners confirming their own interest and the feasibility of integrating the app into their own systems.</p> <p>We do not, at this stage, have enough data to determine the potential of safety personnel incorporating PG&E Report It into their work. However, we do believe these individuals could be influencers in their own communities and if familiar with the app – and satisfied with it – could serve as a valuable referral.</p>	No	None	<p>When PG&E conducted outreach and education to vegetation management contractors and joint-pole partners, they expressed a preference for their existing reporting processes. They did not see a need to use PG&E Report It.</p> <p>PG&E's own safety personnel (the System Inspections team) use an internal app to report safety concerns. The internal app is better suited for the System Inspections team to use because the internal app and associated processes were built for the expertise and knowledge of PG&E safety personnel.</p>