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Appendix 2

Slides in Support of Evaluation Draft Report by Opinion Dynamics on PGE MobileApp Pilot



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)

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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.



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)

The information clearly explained the purpose of the app. The information was easy to understand. The information helped me distinguish an emergency from a non-emergency The materials convinced me to download and eventually use the app. The materials clearly explained how to use the app. I preferred to figure out how to use the app on my own, so I didn't pay much attention to the materials.

The materials did not include enough information.

The information in the materials was hard to understand

Completely disagree

Neither agree nor disagree

- Completely agree
- Don't know



Somewhat disagree
Somewhat agree
Didn't read enough to answer this question

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

Everyone has a role to play in wildfire prevention (95% agreed)

People should take prevention more seriously (88% agreed)

The app is a good way to play a role in prevention (81% agreed) Lack of time (29%) Not interested (25%) Not useful to me (16%) Would take up needed phone storage space (13%) Does not have the

necessary electronic device (9%) Top Barriers (n=117)

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

30%	6	6% 119	Providing details/explanation about the safety concern (n=181)
29%	%	5% <mark>6%</mark> 8	Uploading photos or videos to the app (n=179)
25%	12%	- 4% 8% _1	Providing the location of the safety hazard (n=181)
34%	%	7% 10	Steps to submit the safety report (n=176)
29	.6%	4% <mark>5% 1</mark>	Registration process (n=171)
30	9%	4% 19	Tracking the status of other safety reports in my community (n=169)
36	1%	6% <mark>4% 1</mark> 1	Tracking the status of my safety report (n=161)
	16%	4% 12%	Filtering reports by type, status, or date (n=95)
24	13%	15%	Using the app offline (n=91)

Very difficult Somewhat difficult Neither difficult nor easy Somewhat easy Very easy

29%

30%

36%

24%

31%

21%

51%

51%

51%

47%

46%

44%

43%

38%

26%

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)

It's easier to report a safety concern through the app than it is to call PG&E's call center I am now more likely to look for and report safety hazards Helps keep communities safe from wildfire Saves me time 41% Keeps me informed about safety concerns around me 39% Better understanding of how PG&E addresses safety 32% concerns Discourages vandalism and/or theft of PG&E 7% equipment and infrastructure Other 6% None 5% 4% Don't know

75%

58%

47%

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



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.



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 <u>www.calmac.org</u>



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