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May 12, 2023

Ronald DeMayo
Program and Project Supervisor
Public Safety Power Shutoff Section
Wildfire Safety and Enforcement Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA, 94102

Re: Notice of Violation – 2021 Public Safety Power Shutoff Events

Dear Mr. DeMayo,

Pacific Gas and Electric Company (PG&E) submits the following in response to the Notice of Violation (NOV) regarding 2021 Public Safety Power Shutoff Events, issued on April 7, 2023, by the California Public Utilities Commission's Safety and Enforcement Division.

PG&E finds some of the violations to be duplicative to each other and/or duplicative to correction actions outlined in the proposed 2022 Administrative Enforcement Order regarding the 2020 Public Safety Power Shutoff Events. As outlined further in the response, PG&E has already identified improvements in these instances and does not believe the items noted in the NOV merit financial penalties or an additional enforcement action.

If you have any questions, please do not hesitate to call.

Sincerely,

Mark Quinlan

Senior Vice President

Wildfire & Emergency Operations

cc: Leslie Palmer, CPUC
Anthony Noll, CPUC
Cindy Chen, CPUC
Meredith Allen, PG&E
Susie Martinez, PG&E

Pacific Gas and Electric Company Corrective Measures for Notice of Violation – 2021 Public Safety Power Shutoff Events Submitted May 12, 2023

On April 7, 2023, the California Public Utilities Commission's (CPUC) Safety and Enforcement Division (SED) issued a Notice of Violation (NOV) to Pacific Gas and Electric Company (PG&E). The NOV alleges 13 violations from SED's review of PG&E's five 2021 Public Safety Power Shutoffs (PSPS) Post-Event Reports.

SED found that PG&E failed to comply with certain PSPS guidelines pertaining to notifications, decision criteria and thresholds, filing processes and engagement evaluation in Resolution (R.) ESRB-8, Decision (D.) 19-05-042 and D.20-05-051. PG&E is submitting the following response, and includes if appropriate, corrective actions that were taken or actions that we will take to align with the CPUC's reporting requirements for PSPS events moving forward.

Section A

PG&E reported the public safety partners contacted prior to de-energization, and the date and time these stakeholders were contacted. Among the five events in 2021, PG&E did not report the classified HFTD Tier classification for some affected areas, instead reporting N/A for the following four events:

- August 17 August 19
- September 20 September 21
- October 11 October 12
- October 14 October 16

However, PG&E did not explain why those affected areas did not have a HFTD classification or why those areas were non-HFTD.

PG&E acknowledges there were instances where High Fire Threat Districts (HFTD) Tier classifications were not identified for all Public Safety Partners contacted prior to de-energization, based on reporting direction in the Post-Event Report Template¹ and Resolution ESRB-8². The vast majority of these instances were appropriately designated as N/A as they were not within an HFTD and therefore should not be considered violations, as explained below.

After reviewing all Public Safety Partners contacted, within Appendix E of our 2021 Post-Season Reports, "N/A" was listed as the HFTD due to those affected areas being in a High Fire Risk Area (HFRA), which PG&E utilizes in addition to HFTD to determine PSPS scope³. Circuit configurations from PSPS scoping can result in an impact to customers outside of a HFTD, but within HFRA. In addition to HFRA, a small portion of these instances were found to be potential errors related to missing latitudes/longitudes or manual data entry errors.

PG&E is conducting a thorough review of our data automation to confirm each jurisdiction will have the correct Tier classification in future Post-Event Reports.

PG&E recommends that the Post-Event Reporting Template be modified to request HFTD, HFRA or other for the 2023 season to ensure the Commission receives the information on the classification. PG&E will also provide a reason in future Post-Event Reports if a jurisdiction does not have a HFTD Tier classification listed such as HFRA designation.

¹ https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/templates-psps-post--and-pre-event-reports/template-psps-post-event-reports-as-of-oct-2021.docx

https://docs.cpuc.ca.gov/publisheddocs/published/g000/m218/k186/218186823.pdf

https://www.pge.com/pge_global/common/pdfs/outages/public-safety-power-shutoff/safety-outage-decision-making-guide.pdf

Section B

For the October 11 – October 12 event, on October 12, 9:58 PM, PG&E notified CPUC of the full power restoration. SED noted there were two circuits, TEJON 1102 and TEJON 1103, that were restored at 01:45 AM, October 13, and 10:50 PM, October 12. The restoration time for both circuits were after 9:58 PM, October 12, when PG&E notified CPUC stating it has successfully restored power in all areas. PG&E did not report the accurate restoration information to CPUC.

PG&E disagrees with this violation. In some circumstances, customer outages are appropriately reclassified from PSPS outages to "fire" or "unplanned outages." This can occur when a public agency, like the Department of Forestry and Fire Protection (Cal Fire), requests customers remain de-energized because of a concurrent fire in the area. In addition, customers may experience extended outages when extensive weather-related equipment damages require PG&E to safely complete repairs prior to restoring power.

In the October 11 – 12 event, PG&E reclassified the customers served by TEJON 1102 to unplanned outages. This is because weather-related equipment damages required repairs prior to restoring power, as noted in Table C-1 of the Report. TEJON 1103, as noted in Table B-1 of the Report, was restored at 10:50 a.m., not p.m., on October 12. Thus, while PG&E accurately reported the restoration times in the Tables B-1, this was incorrectly noted by SED in this finding.

PG&E notes that there was a similar finding in SED's 2022 proposed Administrative Enforcement Order to PG&E for its 2020 PSPS events⁴ ("2022 AEO") for which no financial penalties were proposed. We are addressing these findings by adjusting our post-event reporting of PSPS restoration notifications in accordance with the report template that was issued by SED in October 2021 and to clearly identify when customers have been reclassified to "fire" or "unplanned outages."

Section C

For the following two events, PG&E's service email did not include a link to the report on PG&E's website.

- October 11 October 12
- October 14 October 16

PG&E finds this violation duplicative of Section J. See Section J response below.

Section D

For the January 19 – January 21 event, PG&E explained several fire probability models, provided the actual readings of parameters such as maximum wind speed and FPI ratings; however, PG&E did not provide the criteria/threshold for the parameters that led to the decision to shut off power.

PG&E disagrees with this violation. D.19-05-042 5 does not include the need to provide thresholds for the parameters that led to the decision to shut off power in the PSPS Post-Event Report. Including this explanation only became a reporting requirement after the new Post-Event Report template was issued in October 2021. Therefore, the reporting of additional PSPS threshold information was not included in the January 19-21 Post-

⁴ https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/pge-administrative-enforcement-order---2020.pdf

⁵ https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M296/K598/296598822.PDF

Event Report⁶. While there was a similar finding in SED's 2022 AEO, pp. 3-4⁷ for which no penalties were proposed, following SED's issuance of the proposed 2021 Post-Event Report template, we have since addressed these findings by including a more granular explanation of PSPS criteria/threshold for the parameters that led to the decision to shut off power.

Section E

E.1 PG&E did not meet the 48-72 hours, 24-48 hours or 1-4 hours advance notifications to some public safety partners, critical facilities or other customers in the following events (Table 1)

- January 19 January 21
- September 20 September 21
- October 11 October 12
- October 14 October 16
- E.2. When de-energization is initiated, PG&E failed to notify some affected customers for the following events (Table 2)
- E.3. Immediately before re-energization begins, PG&E failed to send notification of some affected customers for the following events (Table 3)
- E.4. When re-energization is complete, PG&E failed to send notification of some affected customers for the following events (Table 4)
- E.5. For the August 17-19 event, PG&E acknowledged due to data limitations at that time, PG&E was unable to provide a full breakdown of the notification failures. During this event, PG&E de-energized 48,155 customers

PG&E finds violations E.1 through E.4 duplicative of Section I. See Section I response below.

In response to E.5, PG&E disagrees with this violation. PG&E provided the number of failed notifications and the reasonings, in Section 5.5, pp. 41-42, of the Post-Event Report⁸, per the requirement. Following issuance of the final report template in October 2021, PG&E began providing additional information as outlined in Table 8 of PG&E's Post-Event Reports. Additionally, PG&E provided the August 17 – 19 notification breakdown in a reply to Cal Advocates' comments⁹ on PG&E's 2021 PSPS Post-Event Reports.

Section F

PG&E did not provide the information of "who made the notifications."

PG&E disagrees with this violation. In the January 19 – 21 Post-Event Report¹⁰, since PG&E explained its notification process, it was implied that the notifications listed were made by PG&E. PG&E's Post-Event Reports only report on PG&E's actions. PG&E encourages public safety partners and community-based organizations to utilize their communication channels to notify their network regarding a PSPS. However, PG&E is unable to

 $[\]label{lem:spectual} {\it https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-01.19.21.pdf$

⁷ https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/pge-administrative-enforcement-order---2020.pdf

⁸ https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-08.17.21.pdf

⁹ https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M465/K578/465578379.PDF

 $[\]frac{10}{https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-\\01.19.21.pdf$

track and report on notifications made by these entities, as their notification systems and/or platforms and timing are outside of PG&E's control and purview.

While there was a similar finding in SED's 2022 AEO, pg. 5¹¹ for which no penalties were proposed, to address these findings we began to align with the proposed 2021 Post-Event Report template (final template issued in October 2021), by specifically identifying "PG&E" as the entity that made notifications to customers, including those enrolled in the Medical Baseline Program, as of the August 17 – 19 event (Section 5, Table 5)¹². This section also outlines the extensive outreach that PG&E conducts with Medical Baseline (MBL) customers to confirm they have received notice of a potential PSPS event.

Section G

For the January 19 – January 21 event, PG&E did not provide the evaluation of such engagement. PG&E only stated "[f]ollowing the submission of this PSPS De-Energization Report, PG&E will provide the report to Public Safety Partners for review and feedback."

There was a similar finding in SED's 2022 AEO, pg. 5¹³ for which no penalties were proposed. While PG&E disagrees with this violation, we acknowledge that our reporting could have been clearer in describing the evaluation of our engagement with public safety partners. In the January 19 – 21 Post-Event Report¹⁴, Section 8, PG&E explains the extensive, multi-layered outreach completed to local and state public safety partners. Additionally, beginning in 2020, PG&E sent PSPS post-event surveys to external partners, in addition to Agency Representatives, to collect feedback. The results from our outreach efforts showed no complaints on our engagement were received for the January 19-21 event. Based on this, we evaluated our engagement with public safety partners to be adequate. As a process improvement to address this finding, we will include in our post-event reporting a clearer description of the evaluation of our engagement with public safety partners.

Section H

For the following two events, PG&E did not explain why no notification attempts were made to the below Medical Base Line (MBL) customers.

1) September 20 – September 21 event: Total impacted MBL customers: 234 Total attempted notifications: 176 Total notifications not attempted: 58

There were 58 MBL customers without notification attempts made and PG&E did not provide an explanation.

2) October 11 - October 12 event:

Total de-energized MBL customers: 1,738 Total attempted notifications: 1,684 Total notifications not attempted: 54

 $^{^{11} \}underline{\text{https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/pge-administrative-enforcement-order---2020.pdf}$

¹² https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-08.17.21.pdf

¹³ https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/pge-administrative-enforcement-order---2020.pdf

 $^{^{14} \}underline{\text{https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-01.19.21.pdf}$

There were 54 MBL customers without notification attempts made and PG&E did not provide an explanation.

This finding was similar to a finding in SED's 2022 AEO, p. 5¹⁵ for which no penalties were proposed. PG&E disagrees with this violation as PG&E reported the explanations for why no notification attempts were made to certain MBL customers referenced in the Sept. 20 – Sept. 21 and October 11 – October 12 post-event reports. PG&E provided the notification failure causes in the Post-Event Reports, including for MBL customers. In the September 20 – 21, 2021 PSPS Post-Event Report, pg. 53¹⁶, Table 8 notes that there was a subset of 735 customers that did not receive notifications. These customers, 58 of which were MBL customers, were not initially anticipated to be impacted by PSPS, but were de-energized for a short period of time because an additional Supervisory Control and Data Acquisition (SCADA) sectionalizing device was required for PSPS execution. The outage for the 735 customers was less than one hour, as the customers were restored as soon as the planned devices could be isolated. PG&E has since developed a process to quickly identify and notify customers impacted by the operation of an unplanned SCADA device ahead of de-energization, where possible. Similar to the September 20 – 21 PSPS outage, Table 8 in the October 11 – 12, 2021 PSPS Post-Event Report, pg. 58¹⁷, notes that a subset of 555 customers did not receive notifications due to an unanticipated weather change which required an unplanned SCADA device to be used for faster de-energization. Of the 555 customers, approximately 54 were MBL customers. Note that the outage for the 555 customers was less than one hour as the customers were restored as soon as the planned device could be isolated. As mentioned above, PG&E has since developed an improved process for notifications when changes require an unplanned device to be used.

While PG&E provided an explanation of the reasons why these missed notifications occurred, we acknowledge the linkage between the MBL missed customer notifications reported in Section 5.3 and the explanations of missed customer notifications in Section 5.5 was not clear. As a process improvement, PG&E will report this linkage more clearly in future reports.

Section I

PG&E did not meet these minimum notification timelines. See details under Section E.

This alleged violation is duplicative of Section E.1 through E.4. PG&E agrees with some of the notification violations, as more thoroughly described and explained in Appendix A, and disagrees with other violations. Similar to the findings in Section E.1 and E.2 referenced above, in 2022, a penalty was proposed by SED in a proposed Administrative Enforcement Order for failing to notify customers at the time of de-energization and at the time of re-energization during the 2020 PSPS events. As discussed in our Request for Hearing to SED's proposed AEO¹⁹ and in Appendix A herein, while we did not notify customers at the moment we began to shutoff power, our notification decisions were made out of consideration for our customers based on our good faith intent not to disturb customers during "curfew/courtesy" hours and by providing "Warning" notifications at 24 hours before de-energization and between one and twelve hours before shutoff. These advanced notifications were likely as effective as, if not more than, notifications sent at the moment we start to shut off power due to technological constraints related to our notification files, including telecommunications capacity, the latter notifications would likely not arrive until well after de-energization had occurred, particularly for larger PSPS

 $^{^{15}\,\}underline{\text{https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/pge-administrative-enforcement-order---2020.pdf}$

¹⁶ https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-09.20.21.pdf

 $^{{}^{17}\}underline{\text{https:/www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-} \underline{10.11.21.pdf}$

¹⁸ June 15, 2022, Proposed Administrative Enforcement Order to PG&E for 2020 PSPS Events at pp. 6, 7. The Commission's proposed financial penalties (\$12M) were solely based on the violations associated with PG&E's failure to notify customers at the time of deenergization and at the time of re-energization.

¹⁹ PG&E's Request for Hearing to SED's 2022 Propose Administrative Order

events. In addition to our Warning notifications, we posted customer outage maps on our PSPS website where customers can input their specific address to see whether it would be impacted by the forecast PSPS event. By sending the Warnings, we had already informed most customers when de-energization would occur.

We have shown great progress and thoughtful, dedicated efforts to serving our customers in the 2021 PSPS events, while understanding that we will continue to make improvements in supporting our customers through PSPS events. We believe our customers were not harmed by the lack of notifications at the moment of deenergization. Our decision to not notify our customers at the moment of deenergization was made out of consideration for our customers as they had received "Warning" notifications. However, we acknowledge that notifying customers when deenergization is initiated is a compliance requirement. Based on our corrective actions resulting from the 2022 AEO, we are currently implementing an automated notification at deenergization (including during courtesy hours) for future PSPS events. The proposed 2022 PSPS AEO was issued well after the 2021 PSPS season, precluding us from addressing these concerns during the 2021 PSPS season.

As to the findings referenced in E.1, E.3 and E.4, PG&E notes that there were similar findings in the 2022 AEO, pg. 4²⁰ and no financial penalties were proposed. As part of continuous improvement to address these findings, PG&E has completed, or is in the process of completing, the following mitigations to minimize notification delays or failures:

- 1. Conducting ongoing customer outreach for updated contact information.
- 2. Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
- 3. Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
- 4. Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages.
- 5. Creating backup notification files, in case of technology or system issues.
- 6. Training EOC team members on process improvements.
- 7. Updating internal processes for timelier and more accurate agency and customer notifications.
- 8. Adjusting when internal systems are turned on.
- 9. Coordinating with customers to ensure access to devices during events.

Section J

- J.1. PG&E's service did not include the report as an attachment for the events below:
 - August 17 August 19
 - September 20 September 21
- J.2. PG&E did not provide a link to the report on the utility's website for the events below:
 - October 11 October 12
 - October 14 October 16

PG&E agrees with this violation and finds it duplicative of Section C. We have since adjusted our internal processes and systems to help ensure filing requirements are met more consistently. We also updated our internal job aids to outline and validate the filing process more clearly. In addition, we have noted to include the report as an attachment and a link to the Post-Event Report in the service email.

Section K

Although PG&E reported the threshold validation and the application of threshold in PSPS decision, PG&E did not report whether the thresholds were adequate after such examination.

²⁰ https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/pge-administrative-enforcement-order---2020.pdf

PG&E disagrees with this violation. As explained in our Post-Event Reports, PG&E only implements PSPS as a measure of last resort to prevent wildfires during significant wind events. In our Post-Event Reports, PG&E outlined in Section 11.1 how PSPS thresholds are examined for criteria adequacy and validated against internal and external data sources. This section also described the analysis PG&E performed using extensive sensitivity and back-cast analysis to ensure PSPS is being used as a measure of last resort. PG&E utilized and referenced the "Detailed Event Dashboard" during the back-cast to confirm thresholds were adequate for PSPS. As noted in Section 11.1 of the Post-Event Reports, Meteorologists evaluated historical PSPS events hour-by-hour to verify the locations and times that are being flagged as meeting PSPS guidance.

Section L

PG&E's customer notification scripts only states "For more information, including medical device charging resources, food replacement and other support, visit pge.com/pspsupdates or call 1-800-743-5002."

PG&E did not report whether the link includes the locations of the CRCs, the services available at each CRC, the hours of operation of each CRC, and where to access electricity during the hours the CRC is closed.

PG&E disagrees with this violation. PG&E notified customers of CRC information including locations, services available and hours of operation by posting on our public facing website, which customers are directed to in each notification. During PSPS outages, due to the detailed volume of CRC information, PG&E notifies and directs agencies, customers and the general public to pge.com/pspsupdates through automated notifications, news releases, social media, community based-organizations, and other avenues. PG&E also directs visitors from the pge.com homepage to pge.com/pspsupdates.

On pge.com/pspsupdates, PG&E prominently highlights the dedicated Community Resource Center (CRC) page. The CRC page includes:

- Open CRC locations
- Hours of operation
- Services available at each site
- A note that the PSPS outage map can be used to find local CRC locations and identify where to access electricity during the hours CRCs are closed.

PG&E proactively coordinates with customers for input regarding PSPS notifications. Based on feedback received, customers generally had low awareness of the terms "Community Resource Centers" and "CRC." This is why PG&E highlights resources provided at CRCs, such as charging stations, as information that is available at pge.com/pspsupdates. We have also incorporated feedback from customers, particularly the Access and Functional Needs population, that PG&E limits the amount of information in automated notifications to maximize effectiveness. We will continue to engage our customers when refining our notifications.

Section M

PG&E did not provide notification of the cancellation of a de-energization event, or removal from scope, by notifying all affected entities, including public safety partners, within two hours of the decision to cancel. See details in Table 5 below:

PG&E disagrees with this violation as this requirement was newly issued in June of 2021, which did not allow sufficient implementation time to address new requirements before 2021 PSPS events. In addition, the new requirement does not impose a rigid obligation, but states that the utilities should "make every attempt." When this notification requirement was issued in June 2021 (D.21-06-034), we experienced challenges meeting this

requirement as various internal processes and systems needed to be adjusted for the 2021 season. In accordance with the language of this notification requirement under D.21-06-034, PG&E "make[s] every attempt" to provide cancellation notifications within two hours of the decision to cancel. In Section 5 of the 2021 PSPS Post-Event Reports, we reported instances where PG&E failed to meet this notification requirement due to various factors listed in <u>Appendix A</u>. As part of continuous improvement, PG&E has completed or is in the process of completing the following:

- Further automating the process to develop, quality check and distribute notifications.
- Analyzing notification production and distribution times to identify potential efficiencies.
- Sending agency and customer automated notifications throughout the night, if needed.
- Sending agency and customer notifications concurrently to minimize distribution times further.
- Having the ability to pinpoint root causes of notification delays or failures to adjust processes more quickly.
- Supplementing automated notifications with ongoing Agency Representative outreach and providing maps and reports via the PSPS Portal. Note the Situation Report includes delta pages which highlight counties and tribes that have been removed from scope.

Conclusion

PG&E is committed to improving PSPS reporting. Upon receipt of the AEO issued in 2022, PG&E incorporated, or had already begun incorporating, improvements to address the feedback. The AEO was not issued until well after the 2021 PSPS season, which is the subject of the NOV. This NOV contains similar feedback to the 2022 AEO²¹. Based on this review, we do not believe the items noted in the NOV merit financial penalties or an additional enforcement action.

²¹ https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/pge-administrative-enforcement-order---2020.pdf



Appendix A

Table 1 includes the 2021 notifications that PG&E acknowledges did not meet timing requirements and Table 2 includes those that PG&E does not agree were in violation. This can be due to conditions, such as sudden changes to weather patterns.

We have also noted the mitigations that we have completed, or are in the process of completing, to better meet these requirements in the future.

Note the number included in the "Number of Entities or Customer Account" column reflects grand totals. The number(s) in the "Explanation" column is a subset of the total related to the explanation and mitigation.

Table 1

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
	Public Safety	Entities who did not receive 1–4-hour imminent notification.	3	We aim to send automated notifications via calls, texts and emails ahead of de-energization. While PG&E did not send automated notifications to three cities, Agency Representatives were in constant coordination with these cities on event status. Note these entities had minimal customer impacts.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
1/19/21 PSPS Event	Partners excluding Critical Facilities and Infrastructure ²³	Entities who were not notified immediately before reenergization	3	We aim to send automated notifications via calls, texts and emails once patrols begins and ahead of re-energization. While PG&E did not send automated notifications to three cities, Agency Representatives were in constant coordination with these cities on event status. Note these entities had minimal customer impacts.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Entities who did not receive cancellation notification	N/A	We were not required to provide entities with a cancellation notification within two hours of the	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.

²² Number of Entities or Customer Accounts for Critical Facilities and Infrastructure Customers and All Other Affected Customers does not take into consideration live agent calls and/or emails sent manually by PG&E for this PSPS event. For example, telecommunication service providers may have received an email or phone call from the CIL during the event.

²³ Only includes cities, counties, tribes, and community choice aggregators.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
		within two hours of the decision to cancel		decision to cancel prior to the adoption of D.21-06-034 ²⁴ .	
		Facilities who did not receive 1–4-hour imminent notifications.	161	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. We began sending Warning Notifications to these 135 critical facilities and infrastructure customers on 1/18/2021 at 16:31 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
	Critical Facilities and	Facilities who did not receive any notifications before deerergization.	0	N/A	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
	Infrastructure ²⁵	Facilities who were not notified at deenergization initiation.	162	infrastructure customers were de- energized between the hours of 23:00 PDT and 08:00 PDT. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. The final notification these critical facility and infrastructure customers received is the Warning Notification. we began sending Warning Notifications to these 162 critical facilities and	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").

⁻

²⁴ PG&E has adjusted processes since the filing of the 2021 Post-Event Reports to meet the following requirement: "each electric investor-owned utility must make every attempt to provide notification of the cancellation of a de-energization event, or removal from scope, by notifying all affected entities, including public safety partners, within two hours of the decision to cancel" (D.21-06-034).

²⁵ Includes public safety partners who are critical facilities and infrastructure customers.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
		Facilities who were not notified immediately before reenergization.	2	infrastructure customers on 1/18/2021 at 16:31 PDT. For 2 critical facilities and infrastructure customers, our field crew did not properly complete fields in PG&E's Outage Dispatch Tool. Specific fields in our Outage Dispatch Tool must be complete in order for our notification system to select the customers to receive automatic notifications. Due to the incomplete fields, customers were not flagged in our notification system to receive a notification immediately before re-energization.	Mitigation #6: Training EOC team members on process improvements.
		Facilities who were not notified when re-energization is complete.	61	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. Three critical facility and infrastructure customers were restored during these hours. We send notifications via phone, text, and email using an automated process. Our notification system runs every 15 minutes to provide Restoration Notifications to customers with outages restored in the most recent 15 minutes. For 58 critical facility and infrastructure customers, the value of the restore time entered in our notification system was outside the 15 minute window; our notification system would run based on the time operator entered the value, preventing the restore message from being sent out.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
		Facilities who did not receive cancellation notification within two hours of the decision to cancel	N/A	We were not required to provide entities with a cancellation notification within two hours of the decision to cancel prior to the adoption of D.21-06-034. ²⁶	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Customers who did not receive 1–4-hour imminent notifications.	4,910	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. We began sending Warning Notifications to these 4,087 customers on 1/18/2021 at 16:31 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
	All other affected customers	Customers who were not notified at deenergization initiation.	4,937	4,917 customers were de-energized between the hours of 23:00 PDT and 08:00 PDT. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. The final notification these customers received was the Warning Notification. We began sending Warning Notifications to these 4,917 customers on 1/18/2021 at 16:31 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
		Customers who were not notified immediately before reenergization.	350	For 328 customers, our field crew did not properly complete fields in our Outage Dispatch Tool. Specific fields in PG&E's Outage Dispatch Tool must be complete in order for our notification system to select the customers to receive automatic	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #7: Updating internal processes for more

²⁶ PG&E has adjusted processes since the filing of the 2021 Post-Event Reports to meet the following requirement: "each electric investor-owned utility must make every attempt to provide notification of the cancellation of a de-energization event, or removal from scope, by notifying all affected entities, including public safety partners, within two hours of the decision to cancel" (D.21-06-034).

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				notifications. Due to the incomplete fields, customers were not flagged our notification system to receive a notification when immediately before re-energization. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. Two customers were restored during these hours.	timely and accurate agency and customer notifications.
		Customers who were not notified when re-energization is complete.	1,874	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 272 customers were restored during these hours. We send notifications via phone, text, and email using an automated process. Our notification system runs every 15 minutes to provide Restoration Notifications to customers with outages restored in the most recent 15 minutes. For 1,525 customers, the value of the restore time entered in our notification system was outside the 15 minute window our notification system would run based on the time operator entered the value, preventing the restore message from being sent out. 57 customers were not notified due to an issue with our automated notification system	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Customers who did not receive cancellation notification	N/A	We were not required to provide customers with a cancellation notification within two hours of the	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
		within two hours of the decision to cancel		decision to cancel prior to the adoption of D.21-06-034. ²⁷	
8/17/21 PSPS Event		Entities who did not receive 1–4-hour imminent notification.	1	We aim to send automated notifications via calls, texts and emails ahead of de-energization. While we did not send automated notifications to one city, Agency Representatives were in constant coordination with this city on event status.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
	Public Safety Partners excluding Critical Facilities and Infrastructure ²⁸	Entities who did not receive any notifications before deenergization	1	We aim to send automated notifications via calls, texts and emails ahead of de-energization. While we did not send automated notifications to one city, Agency Representatives were in constant coordination with this city on event status.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Entities who were not notified immediately before reenergization	1	We aim to send automated notifications via calls, texts and emails once patrols begin and ahead of reenergization. While we did not send automated notifications to one city, Agency Representatives were in constant coordination with this city on event status.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Entities who did not receive cancellation notification within two hours of the decision to cancel	11	We aim to send automated notifications via calls, texts and emails once a jurisdiction has been removed from scope. While we did not send automated notifications to seven counties, two cities and two tribes, Agency Representatives were in constant coordination with these agencies on event status.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
	Critical Facilities and	Facilities who did not receive 48–72-hour	305	44 critical facility and infrastructure customers were notified 47.5-47.9 hours in	Mitigation #2: Sending automated notifications day and

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²⁷ PG&E has adjusted processes since the filing of the 2021 Post-Event Reports to meet the following requirement: "each electric investor-owned utility must make every attempt to provide notification of the cancellation of a de-energization event, or removal from scope, by notifying all affected entities, including public safety partners, within two hours of the decision to cancel" (D.21-06-034).

²⁸ Only includes cities, counties, tribes, and community choice aggregators.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
	Infrastructure ²⁹	advance notification.		advance of de-energization.	night, as needed (i.e., removal of "courtesy hours").
		Facilities who did not receive 1–4-hour imminent notifications.	171	27 customers were scheduled to be de-energized for PSPS but experienced a non-PSPS outage 4-5 hours before their planned deenergization time. 3 critical facility and infrastructure customers experienced a delayed outage due to a locked gate preventing access to the planned device. These customers received a Warn Notification 7-8 hours before de-energization. 2 critical facility and infrastructure customers experienced a delay in deenergization due to switching. These customers received a Warn Notification 7-8 hours before deenergization.	Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #9: Coordinating with customers to ensure access to devices during events.
		Facilities who were not notified at de-energization initiation.	836	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. One critical facility and infrastructure was deenergized during these hours and did not receive the Power-Off Notification. A failure in our message broadcast system for notifications sent out 8/18/2021 at 20:53 PDT resulted in 327 critical facility and infrastructure customers not receiving the Power-Off Notification. There was not sufficient time to re-send these failed notifications before 21:00 PDT. 463 critical facility and infrastructure	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.

²⁹ Includes public safety partners who are critical facilities and infrastructure customers.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				customers did not receive the Power-Off Notification due to insufficient time to generate notification files before 21:00 PDT. 39 critical facility and infrastructure customers were sent the Power-Off Notification on 8/17/2021 at 20:53 PDT, but their de-energization time was significantly delayed, and the	
		Facilities who were not notified immediately before reenergization.	223	notification was sent more than 1 hour before de-energization. 196 critical facility and infrastructure customers did not receive notification immediately before re-energization due to an error in our automated notification system. For 21 critical facilities and infrastructure customers, our field crew did not properly complete fields in PG&E's Outage Dispatch Tool. Specific fields in PG&E's Outage Dispatch Tool must be complete in order for PG&E's notification system to select the customers to receive automatic notifications. Due to the incomplete fields, customers were not flagged in our notification system to receive a notification immediately before re-energization.	Mitigation #6: Training EOC team members on process improvements. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Facilities who were not notified when reenergization is complete.	387	58 critical facility and infrastructure customers did not receive notification immediately before reenergization due to an error in PG&E's automated notification system. At the time of the PSPS, PG&E do not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. Six critical	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #6: Training EOC team members on process improvements. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				facility and infrastructure customers were restored during these hours.	
				For one critical facility and infrastructure customer, automated notifications were not turned on in time to notify these customers immediately before re-energization due to a delay in PG&E's communications process.	
				We send notifications via phone, text, and email using an automated process. Our notification system runs every 15 minutes to provide Restoration Notifications to customers with outages restored in the most recent 15 minutes. For 313 critical facility and infrastructure customers, the value of the restore time entered in our notification system was outside the 15- minute window our notification system would run based on the time operator entered the value, preventing the restore message from being sent out. For 3 critical facility and infrastructure customers that were not notified when re-energization was complete, the	
		Facilities who did not receive cancellation notification within two hours of the decision to cancel	380	cause is under investigation. This was due to the time required to build out cancellation notification files after the decision had been made to remove the customers from scope. We are reviewing the issues with our processes and is continuing to work on improving our ability to send cancellation notices within two hours of the decision to cancel the de-energization event or removal from scope.	Mitigation #5: Creating backup notification files, in case of technology or system issues.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
	All other affected customers	Customers who did not receive 24–48- hour advance notifications.	20,049	For 10,876 customers, this was due to the change in weather patterns. At the time advanced notifications were sent, these customers were not in scope. 8,335 customers received the Watch Notification 21-24 hours in advance. 500 customers were scheduled to be de-energized for PSPS, but experienced a non-PSPS outage 4-5 hours before their planned de-energization time. These customers received a Watch Notification 28 hours before their planned de- energization time. 104 customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned de-energization time. 122 customers did not have valid contact information on file during the event. 35 customers were not notified due to data quality issues causing them to not be included in the correct database to receive notifications. 24 customers experienced an unplanned outage due to a locked gate preventing access to the planned device. 5 customers experienced a delayed outage due to a locked gate preventing access to the planned device. These customers received a Watch Notification 49 and 10 hours before de-energization.	Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #6: Training EOC team members on process improvements. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications. Mitigation #9: Coordinating with customers to ensure access to devices during events.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				13 customers experienced a 16-minute unplanned outage due to switching. 35 customers experienced a delay in de-energization due to switching. They received a Watch Notification 49 and 13 hours before de-energization. 57 customers were de-energized on	Mitigation #2: Sending
		Customers who did not receive 1–4-hour imminent notifications.	5,235	8/18/2021 between the hours of 08:00 PDT and 09:00 PDT. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. The final notification these customers received is the Warning Notification. We began sending Warning Notifications to these 58 customers on 8/17/2021 at 15:46 PDT. 513 customers were scheduled to be de-energized for PSPS but experienced a non-PSPS outage 4-5 hours before their planned de-energization time. These customers received a Warn Notification 2-3 hours after their actual de-energization time. 24 customers experienced an unplanned outage due to a locked gate preventing access to the planned device. 5 customers experienced a delayed outage due to a locked gate preventing access to the planned device. These customers received a Warn Notification 7-8 hours before de-energization. 13 customers experienced a 16-	automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications. Mitigation #9: Coordinating with customers to ensure access to devices during events.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
		Customers who did not receive any notifications	260	minute unplanned outage due to switching. 35 customers experienced a delay in de-energization due to switching. These customers received a Warn Notification 7-8 hours before de-energization. 38 customers were not notified due to data quality issues causing them to not be included in the correct database to receive notifications. 35 customers were not notified due to data quality issues causing them to not be included in the correct database to receive notifications.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		before de- energization.	200	in the correct database to receive notifications.	
		Customers who were not notified at de-energization initiation.	40,081	A failure in our message broadcast system for notifications sent out 8/18/2021 at 20:53 PDT resulted in 17,637 customers not receiving the Power-Off Notification. There was not sufficient time to re-send these failed notifications before 21:00 PDT. 21,454 customers did not receive the Power-Off Notification due to insufficient time to generate notification files before 21:00 PDT. 513 customers were scheduled to be de-energized for PSPS but experienced a non-PSPS outage 4-5 hours before their planned de-energization time. These customers received a Power Off Notification 7-8 hours after their actual de-energization time. 176 customers were sent the Power-Off Notification on 8/17/2021 at 20:53 PDT, but their de-energization time was significantly delayed and the notification was sent more than 1	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications. Mitigation #9: Coordinating with customers to ensure access to devices during events.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				hour before de-energization. 24 customers experienced an unplanned outage due to a locked gate preventing access to the planned device. 37 customers were not notified due to data quality issues causing them to not be included in the correct database to receive notifications. 13 customers experienced a 16-minute unplanned outage due to switching.	
		Customers who were not notified immediately before reenergization.	9,022	For 1,473 customers, our field crew did not properly complete fields in PG&E's Outage Dispatch Tool. Specific fields in PG&E's Outage Dispatch Tool must be complete in order for our notification system to select the customers to receive automatic notifications. Due to the incomplete fields, customers were not flagged in our notification system to receive a notification when re-energization was complete. 7,089 customers did not receive notification immediately before re-energization due to an error in our automated notification system. Master meter tenant customers do not receive notifications through our automated notification system. 60 master meter tenant customers did not receive a notification immediately before re-energization. 166 customers were not notified due to data quality issues	Mitigation #6: Training EOC team members on process improvements. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				causing them to not be included in the correct database to receive notifications.	
				6 customers were re-energized outside of the window our automated notification system was turned on.	
				3 customers that were not notified immediately before re- energization are under investigation.	
		Customers who were not notified when reenergization is complete.	17,565	At the time of the PSPS, we did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 341 customers were restored during these hours. We send notifications via phone, text, and email using an automated process. our notification system runs every 15 minutes to provide Restoration Notifications to customers with outages restored in the most recent 15 minutes. For 12,921 customers, the value of the restore time entered in our notification system was outside the 15 minute window our notification system would run based on the time operator entered the value, preventing the restore message from being sent out. 3,607 customers did not receive notification immediately before reenergization due to an error in our automated notification system Master meter tenant customers do not receive notifications through our automated notification	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications. Mitigation #8: Adjusting when internal systems are turned on.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				system. 60 master meter tenant customers did not receive a notification immediately before re-energization.	
				166 customers were not notified due to data quality issues causing them to not be included in the correct database to receive notifications.	
				24 customers were re-energized outside of the window our automated notification system was turned on.	
				221 customers that were not notified when re-energization was complete are under investigation.	
		Customers who did not receive cancellation notification within two hours of the decision to cancel.	17,476	This was due to the time required to build out cancellation notification files after the decision had been made to remove the customers from scope. We are reviewing the issues with our processes and is continuing to work on improving our ability to send cancellation notices within two hours of the decision to cancel the de-energization event or removal from scope.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
9/20/21 PSPS Event	Critical Facilities and Infrastructure ³⁰	Facilities who did not receive 1–4-hour imminent notifications.	86	For 71 critical facilities and infrastructure customers, deenergization occurred between the hours of approximately 06:00 and 07:30 PDT. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").

 $^{^{30}}$ Includes public safety partners who are critical facilities and infrastructure customers

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				began sending Warning Notifications to these critical facilities and infrastructure customers at 9/19/2021 20:34 PDT.	
		Facilities who were not notified at de-energization initiation.	115	For 100 critical facilities and infrastructure customers, deenergization occurred between the hours of approximately 22:30 and 07:30 PDT. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E did not send these critical facilities and infrastructure customers a Power Off Notification. The final notification these critical facilities and infrastructure customers received is the Warning Notification. PG&E began sending Warning Notifications to these critical facilities and infrastructure customers at 9/19/2021 20:34 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
		Facilities who were not notified immediately before reenergization.	36	PG&E sends notifications via phone, text, and email using an automated process. For 21 critical facilities and infrastructure customers, automated notifications were not turned on in time to notify these customers immediately before re-energization due to a delay in PG&E's communications process.	Mitigation #8: Adjusting when internal systems are turned on.
		Facilities who were not notified when re-energization is complete.	43	PG&E sends notifications via phone, text, and email using an automated process. For four critical facilities and infrastructure customers, automated notifications were not turned on in time to notify these customers immediately before re-energization due to a delay in PG&E's communications process.	Mitigation #6: Training EOC team members on process improvements. Mitigation #8: Adjusting when internal systems are turned on.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 22	Explanation	Mitigation
				For 24 critical facilities and infrastructure customers, PG&E's field crew did not properly complete fields in PG&E's Outage Dispatch Tool. Specific fields in PGE's Outage Dispatch Tool must be complete in order for PG&E's notification system to select the customers to receive automatic notifications. Due to the incomplete fields, customers were not flagged in PG&E's notification system to receive a notification when reenergization was complete.	
		Customers who did not receive 1–4-hour imminent notifications.	2,285	For 1,544 customers, de- energizations started between the hours of approximately 01:00 and 07:30 PDT. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E began sending Warning Notifications to these customers at 9/19/2021 20:34 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
	All other affected customers	Customers who were not notified at deenergization initiation.	2,853	For 2,112 customers, de- energization occurred between the hours of approximately 22:30 and 07:30 PDT. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E did not send these customers a Power Off Notification. The final notification these customers received is the Warning Notification. PG&E began sending Warning Notifications to these customers at 9/19/2021 20:34 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 22	Explanation	Mitigation
		Customers who were not notified immediately before reenergization.	801	PG&E sends notifications via phone, text, and email using an automated process. For 56 customers, automated notifications were not turned on in time to notify these customers immediately before re-energization due to a delay in PG&E's communications process. Four customers were de-energized for PSPS, but after being deenergized for PSPS, an incident that would have caused a non-PSPS outage (i.e., a car hit a pole which led to a non-PSPS outage) occurred. The outage reason for these customers were reclassified in PG&E's system to a non-PSPS outage, and due to the reclassification, the customers were flagged to no longer receive PSPS-related notifications.	Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #6: Training EOC team members on process improvements. Mitigation #8: Adjusting when internal systems are turned on.
		Customers who were not notified when reenergization is complete.	1,128	For 280 customers, PG&E's field crew did not properly complete fields in PG&E's Outage Dispatch Tool. Specific fields in PGE's Outage Dispatch Tool must be complete in order for PG&E's notification system to select the customers to receive automatic notifications. Due to the incomplete fields, customers were not flagged in PG&E's notification system to receive a notification system to receive a notification when reenergization was complete. PG&E sends notifications via phone, text, and email using an automated process. For 61 customers, automated notifications were not turned on in time to notify these customers immediately before re-energization due to a delay in PG&E's communications process.	Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications. Mitigation #8: Adjusting when internal systems are turned on.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				an incident on the lines that serve them that caused a non-PSPS outage (i.e., a car hit a pole which led to a non-PSPS outage). The outage reasons for these customers were reclassified in PG&E's system to a non-PSPS outage, and due to the reclassification, the customers were flagged to no longer receive PSPS-related notifications. These customers would have received a separate non-PSPS-related notification regarding restoration after the non-PSPS outage. PG&E sends notifications via phone, text, and email using an automated process. PG&E's notification system runs every 15 minutes to provide Restoration Notifications to customers with outages restored in the most recent 15 minutes. For three customers, the operator restored the outage at 16:30 and entered a timestamp of 16:10. PG&E's notification system ran the Restoration Notification system ran again at 16:30 to notify customers with outages restored between 16:00 and 16:15. When the notification system ran again at 16:30 to notify customers with outages restored between 16:15 and 16:30, these three customers were not picked up by the system due to 16:10 timestamp. For four customers, the customer's status changed in PG&E's Distribution Management System	
				during the event. The change in	

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				status was due to the customer stopping service.	
	Public Safety Partners excluding	Entities who were not notified immediately before re- energization	1	PG&E aims to send automated notifications via calls, texts and emails once patrols begins and ahead of re-energization. While PG&E did not send automated notifications to one county, Agency Representatives were in constant coordination with this county on event status.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
10/11/2 1 PSPS	Critical Facilities and Infrastructure	Entities who did not receive cancellation notification within two hours of the decision to cancel	2	PG&E aims to send automated notifications via calls, texts and emails once a jurisdiction has been removed from scope. While PG&E did not send automated notifications to two tribes, Agency Representatives were in constant coordination with these tribes on event status.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
Event	Critical Facilities and Infrastructure ³¹	Facilities who did not receive 1–4-hour imminent notifications. ³²	628	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E began sending Warning Notifications to 605 critical facilities and infrastructure customers at 10/10/2021 17:35 PDT. One critical facilities and infrastructure customer on a circuit slated for a PSPS outage experienced an outage not related to PSPS prior to the de-energization start time. The outage reason for this customer was reclassified in PG&E's system to a non-PSPS	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages.

³¹ Includes public safety partners who are critical facilities and infrastructure customers.
32 Includes only public safety partners who are critical facilities and infrastructure customers that are required to receive notifications 48-72 hour advanced notification.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				outage, and due to the reclassification, the critical facilities and infrastructure customer was flagged to no longer receive PSPS-related notifications.	
		Facilities who were not notified at deenergization initiation.	586	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 563 critical facilities and infrastructure customers did not receive notifications at de-energization initiation due to de-energization occurring between the hours of 21:00 and 08:00 PDT. One critical facilities and infrastructure customer on a circuit slated for a PSPS outage experienced an outage not related to PSPS prior to the de-energization start time. The outage reason for this customer was reclassified in PG&E's system to a non-PSPS outage, and due to the reclassification, the critical facilities and infrastructure customer was flagged to no longer receive PSPS-related notifications.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages.
		Facilities who were not notified immediately before reenergization.	74	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 23 critical facilities and infrastructure customers did not receive notifications immediately before reenergization due to re-energization occurring between 21:00 and 08:00 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #7: Updating internal processes for more

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				PG&E sends notifications via phone, text, and email using an automated process. For four critical facilities and infrastructure customers, automated notifications were not able to be sent due to incomplete information (e.g., data entry errors in the field). Four critical facilities and infrastructure customers were not notified as they were restored earlier than anticipated. One critical facilities and infrastructure customer was not notified due to an issue with PG&E's automated notification system. The reason(s) for the 16 remaining critical facilities and infrastructure customers not notified immediately before re-energization is currently	timely and accurate agency and customer notifications.
		Facilities who were not notified when re-energization is complete.	57	under investigation. At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 13 critical facilities and infrastructure customers did not receive notifications when re-energization was complete due to re-energization occurring between 21:00 and 08:00 PDT. Additionally, seven critical facility and infrastructure customers were located on the Calpine 1144 circuit which was not restored within the timeline of the 10/11 event. At the weather "All Clear," PG&E requested that Calpine begin patrols	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				of the line, and PG&E was informed that patrols would not begin until the 10/14 PSPS event was completed.	
		Facilities who did not receive cancellation notification within two hours of the decision to cancel	32	This was due to the time required to build out cancellation notification files after the decision had been made to remove the customers from scope, as well as customers being removed from scope during between 21:00 and 08:00 PDT at which point PG&E waits until the next morning to initiate the cancellation notifications. PG&E is reviewing the issues with our processes and is continuing to work on improving our ability to send cancellation notices within two hours of the decision to cancel the denergization event or removal from scope.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Customers who did not receive 24–48-hour advance notifications.	3,086	11 customers were not notified due to data quality issues causing them to not be included in the correct database to receive notifications.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
	All other affected customers	Customers who did not receive 1–4-hour imminent notifications.	22,188	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E began sending Warning Notifications to these 21,228 customers at 10/10/2021 17:35 PDT. Warning Notifications were negatively impacted by outages that caused 852 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				device had to be used to meet the planned de-energization time. 69 customers did not have valid contact information on file during the event. 36 customers on circuits slated for PSPS outages experienced an outage not related to PSPS prior to the deenergization start time. The outage reason for these customers were reclassified in PG&E's system to a non-PSPS outage, and due to the reclassification, the critical	
		Customers who did not receive any notifications before deenergization.	635	11 customers were not notified due to data quality issues causing them to not be included in the correct database to receive notifications.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Customers who were not notified at deenergization initiation.	21,480	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 20,470 customers did not receive notifications at de-energization initiation due to de-energization occurring between 21:00 and 08:00 PDT. 36 customers on circuits slated for PSPS outages experienced an outage not related to PSPS prior to the deenergization start time. The outage reason for these customers were reclassified in PG&E's system to a non-PSPS outage, and due to the reclassification, the critical facilities and infrastructure customers were flagged to no longer receive PSPS-related notifications.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
		Customers who were not notified immediately before reenergization.	3,777	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 290 customers did not receive notifications immediately before re-energization due to re-energization occurring between 21:00 and 08:00 PDT. PG&E sends notifications via phone, text, and email using an automated process. For 289 customers, automated notifications were not able to be sent due to incomplete information (e.g., data entry errors in the field). 361 customers were not notified as they were restored earlier than anticipated. 125 customers were not notified due to an issue with PG&E's automated notification system. 60 customers were not notified due to data quality issues causing them to not be included in the correct databases to receive notifications. The reason(s) for the remaining 775 customers not notified immediately before re-energization is currently under investigation.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages. Mitigation #6: Training EOC team members on process improvements. Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications. Mitigation #8: Adjusting when internal systems are turned on.
		Customers who were not notified when re-energization is complete.	2,648	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. 1,700 customers did not receive notification that reenergization was complete due to re-	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
				energization occurring between 21:00 and 08:00 PDT. Eight customers were located on the Calpine 1144 circuit, which was not restored within the timeline of the 10/11 event. At the weather "All Clear", PG&E requested that Calpine begin patrols of the line, and PG&E was informed that patrols would not begin until the 10/14 PSPS event was completed. 60 customers were not notified due to data quality issues causing them to not be included in the correct databases to receive notifications. The reason(s) for the remaining 43 customers not notified when reenergization is complete is currently	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Customers who did not receive cancellation notification within two hours of the decision to cancellation	1,105	under investigation. This was due to the time required to build out cancellation notification files after the decision had been made to remove the customers from scope, as well as customers being removed from scope during between 21:00 and 08:00 PDT at which point PG&E waits until the next morning to initiate the cancellation notifications. PG&E is reviewing the issues with our processes and is continuing to work on improving our ability to send cancellation notices within two hours of the decision to cancel the denergization event or removal from scope.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours"). Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
10/14/2 1 PSPS Event	Public Safety Partners excluding Critical Facilities and	Entities who did not receive cancellation notification within two	11 counties and 1 city	PG&E aims to send automated notifications via calls, texts, and emails once a jurisdiction has been removed from scope. At the time of the PSPS, we did not send	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
	Infrastructure ³³	hours of the decision to cancel		automated notifications to eleven counties and one city within two hours of the decision to remove the jurisdiction from scope, Agency Representatives were in constant coordination with these agencies on event status.	
		Facilities who did not receive 1–4-hour imminent notifications ³⁴	38	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E began sending Warning Notifications prior to 21:00 to these 38 critical facilities and infrastructure customers at 10/13/21 19:12 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
	Critical Facilities and Infrastructure	Facilities who were not notified at deenergization initiation	38	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E began sending Warning Notifications prior to 21:00 to these 38 critical facilities and infrastructure customers at 10/13/21 19:12 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
		Facilities who did not receive cancellation notification within two hours of the decision to cancel	209	This was due to the time required to build out cancellation notification files after the decision had been made to remove the customers from scope. PG&E is reviewing the issues with our processes and is continuing to work on improving our ability to send cancellation notices within two hours of the decision to cancel the de-energization event or removal from scope.	Mitigation #5: Creating backup notification files, in case of technology or system issues.

Only includes cities, counties, tribes, and community choice aggregators.
 Includes only public safety partners who are critical facilities and infrastructure customers that are required to receive notifications 48-72 hour advanced notification.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts ²²	Explanation	Mitigation
	All other affected customers	Customers who did not receive 1–4-hour imminent notifications	628	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E began sending Warning Notifications prior to 21:00 to these 627 customers at 10/13/21 19:12 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
		Customers who were not notified at deenergization initiation	628	At the time of the PSPS, PG&E did not send automated notifications to customers between the hours of 21:00 and 08:00 PDT as a courtesy to prevent waking customers in the middle of the night. PG&E began sending Warning Notifications prior to 21:00 to these 627 customers at 10/13/21 19:12 PDT.	Mitigation #2: Sending automated notifications day and night, as needed (i.e., removal of "courtesy hours").
		Customers who were not notified immediately before reenergization.	35	33 customers were not notified immediately before re-energization due to data quality issues causing their notifications to be assigned to the wrong re. PG&E implemented ad-hoc Weather "All-Clear" Notifications via phone calls for this event. One customer was not notified due to not having a phone number.	Mitigation #7: Updating internal processes for more timely and accurate agency and customer notifications.
		Customers who did not receive cancellation notification within two hours of the decision to cancel	6,377	This was due to the time required to build out cancellation notification files after the decision had been made to remove the customers from scope. PG&E is reviewing the issues with our processes and is continuing to work on improving our ability to send cancellation notices within two hours of the decision to cancel the de-energization event or removal from scope.	Mitigation #4: Updating internal systems to separate data when there are concurrent PSPS events or non-PSPS outages.

Table 2

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
	Public Safety Partners excluding Critical	Entities who did not receive 48- to 72-hour advance notification.	1	This was due to the change in weather patterns. At the time advanced notifications were sent, two cities were not in scope.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
	Facilities and Infrastructure ³⁶	Entities who did not receive any notifications before de- energization	0	N/A	N/A
1/19/21 Critical PSPS	Critical Facilities and	Facilities who did not receive 48–72-hour advance notification.	12	For 12 critical facilities and infrastructure customers, this was due to the change in weather patterns. At the time advanced notifications were sent, these critical facilities and infrastructure customers were not in scope.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
Event	Infrastructure ³⁷	Facilities who did not receive 1–4-hour imminent notifications.	161	For 26 critical facilities and infrastructure customers, the outage start time was delayed due to change in weather patterns. We sent these customers Warning Notifications on 1/18/2021 at 16:31 PDT.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
2	All other affected customers	Customers who did not receive 24–48-hour advance notifications.	441	20 customers did not have valid contact information on file during the event. 421 customers received the Watch Notification 23-24 hours in advance of de-energization.	. Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who did not receive 1–4-hour	4,910	20 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.

³⁵ Number of Entities or Customer Accounts for Critical Facilities and Infrastructure Customers and All Other Affected Customers does not take into consideration live agent calls and/or emails sent manually by PG&E for this PSPS event. For example, telecommunication service providers may have received an email or phone call from the CIL during the event.

36 Only includes cities, counties, tribes, and community choice aggregators.

37 Includes public safety partners who are critical facilities and infrastructure customers.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		imminent notifications.		For 803 customers, the outage start time was delayed due to change in weather patterns. We sent these customers Warning Notifications on 1/18/2021 at 16:31 PDT.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who did not receive any notifications before deenergization.	20	20 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who were not notified at deenergization initiation.	4,937	20 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who were not notified immediately before reenergization.	350	20 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who were not notified when re-energization is complete.	1,874	20 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.
8/17/21 PSPS	Public Safety Partners excluding Critical Facilities and Infrastructure ³⁸	Entities who did not receive 48-to 72-hour advance notification.	3	This was due to the change in weather patterns. At the time advanced notifications were sent, one county and two tribes were not in scope.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
Event	Critical Facilities and Infrastructure ³⁹	Facilities who did not receive 48–72-hour advance notification.	305	For 256 critical facilities and infrastructure customers, this was due to the change in weather patterns. At the time advanced notifications were sent, these	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify

³⁸ Only includes cities, counties, tribes, and community choice aggregators.
³⁹ Includes public safety partners who are critical facilities and infrastructure customers.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
				critical facilities and infrastructure customers were not in scope. 3 critical facility and infrastructure customers did not have valid contact information on file during the event. 2 critical facility and infrastructure customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned de-energization time.	customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who did not receive 1–4-hour imminent notifications.	171	For 117 critical facility and infrastructure customers, the outage start time was delayed due to changes in weather patterns. These customers received the Warn Notification 4-6 hours in advance. For 16 critical facility and infrastructure customers, the outage start time was significantly delayed due to change in weather patterns. These customers received a Warn Notification 19-46 hours in advance. 3 critical facility and infrastructure customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who did not receive any notifications before deenergization.	6	3 critical facility and infrastructure customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time. 3 critical facility and infrastructure customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		Facilities who were not notified at deenergization initiation.	836	3 critical facility and infrastructure customers did not have valid contact information on file during the event. 3 critical facility and infrastructure customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned de-energization time.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who were not notified immediately before reenergization.	223	3 critical facility and infrastructure customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time. These customers were re-energized before our automated notifications were enabled. 3 critical facility and infrastructure customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who were not notified when reenergization is complete.	387	3 critical facility and infrastructure customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time. These customers were re-energized before our automated notifications were enabled. 3 critical facility and infrastructure customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
	All other affected customers	Customers who did not receive 24–48- hour advance	20,049	For 10,876 customers, this was due to the change in weather patterns. At the time advanced	Mitigation #1: Conducting ongoing customer outreach for updated contact information.

 $Some\ of\ the\ measures\ included\ in\ this\ document\ are\ contemplated\ as\ additional\ precautionary\ measures\ intended\ to\ further\ reduce\ the\ risk\ of\ wildfires.$

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		notifications.		notifications were sent, these customers were not in scope. 104 customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned de-energization time. 122 customers did not have valid contact information on file during the event.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who did not receive 1–4-hour imminent notifications.	5,235	For 3,697 customers, the outage start time was delayed due to change in weather patterns. These customers received the Warn Notification 4-5 hours in advance. For 627 customers, the outage start time was significantly delayed due to change in weather patterns. These customers received a Warn Notification 24-46 hours in advance. 104 customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time. 122 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who did not receive any notifications before deenergization.	260	121 customers did not have valid contact information on file during the event. 104 customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		Customers who were not notified at deenergization initiation.	40,081	104 customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time. 123 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who were not notified immediately before reenergization.	9,022	121 customers did not have valid contact information on file during the event. 104 customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time. These customers were re-energized before our automated notification system was turned on.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who were not notified when reenergization is complete.	17,565	121 customers did not have valid contact information on file during the event. 104 customers experienced a 48-minute unplanned outage when a device was found to be inoperable, and an alternate device had to be used to meet the planned deenergization time. These customers were re-energized before our automated notification system was turned on.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
9/20/21 PSPS Event	Public Safety Partners excluding Critical Facilities and	Entities who did not receive 48- to 72-hour advance notification.	8	This was due to the change in weather patterns. At the time advanced notifications were sent, four cities and four counties were not in scope.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
	1 acmics and	Entities who did not receive 1–4-	0	N/A	N/A

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
	Infrastructure ⁴⁰	hour imminent notification.			
	Critical Facilities and Infrastructure ⁴¹			For 27 critical facilities and infrastructure customers, this was due to the change in weather patterns. At the time advanced notifications were sent, these critical facilities and infrastructure customers were not in scope.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who did not receive 48–72-hour advance notification.	42	Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 15 critical facilities and infrastructure customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned deenergization time. Follow up actions are included in the lessons learned section.	
		Facilities who did not receive 1–4-hour imminent notifications.	86	Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 15 critical facilities and infrastructure customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned deenergization time. Follow up actions are included in the lessons learned section.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who did not receive any notifications before deenergization.	15	The notifications were negatively impacted by a 23-minute outage that caused 15 critical facilities and infrastructure customers who were not in scope for the PSPS event to be de-energized when an unplanned	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).

 $^{^{40}}$ Only includes cities, counties, tribes, and community choice aggregators 41 Includes public safety partners who are critical facilities and infrastructure customers

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
				upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions are included in the lessons learned section.	
		Facilities who were not notified at deenergization initiation.	115	Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 15 critical facilities and infrastructure customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned deenergization time. Follow up actions are included in the lessons learned section.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who were not notified immediately before reenergization.	36	Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 15 critical facilities and infrastructure customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned deenergization time. Follow up actions are included in the lessons learned section.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who were not notified when re-energization is complete.	43	Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 15 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions are included in the lessons learned section.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
	All other affected customers	Customers who did not receive 24–48-hour advance notifications.	741	Six customers did not have valid contact information on file during the event. Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 735 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions are included in the lessons learned section.	. Mitigation #1: Conducting ongoing customer outreach for updated contact information. . Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who did not receive 1–4-hour imminent notifications.	2,285	Six customers did not have valid contact information on file during the event. Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 735 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions are included in the lessons learned section.	. Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who did not receive any notifications before deenergization.	741	Six customers did not have valid contact information on file during the event. Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 735 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions are included in the lessons learned section.	. Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
				Six customers did not have valid contact information on file during the event.	. Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who were not notified at deenergization initiation.	2,853	Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 735 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions are included in the lessons learned section.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).3
		Customers who were not notified immediately before reenergization.	801	Four customers were de-energized for PSPS, but after being deenergized for PSPS, an incident that would have caused a non-PSPS outage (i.e., a car hit a pole which led to a non-PSPS outage) occurred. The outage reason for these customers were reclassified in PG&E's system to a non-PSPS outage, and due to the reclassification, the customers were flagged to no longer receive PSPS-related notifications. Six customers did not have valid contact information on file during the event. Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 735 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions are included in the lessons learned section.	. Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who were not notified when	1,128	Six customers did not have valid contact information on file during the event.	. Mitigation #1: Conducting ongoing customer outreach for updated contact information.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		re-energization is complete.		Furthermore, the notifications were negatively impacted by a 23-minute outage that caused 735 customers who were not in scope for the PSPS event to be de-energized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. Follow up actions related to this are included in the lessons learned section.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
10/11/2 1 PSPS Event	Public Safety Partners excluding Critical Facilities and Infrastructure ⁴²	Entities who did not receive 48- to 72-hour advance notification.	17	This was due to the change in weather patterns. At the time advanced notifications were sent, 8 counties, 6 cities and 3 tribes were not in scope.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Entities who did not receive 1–4-hour imminent notification.	0	N/A	N/A
		Entities who did not receive any notifications before de- energization	0	N/A	N/A
	Critical Facilities and Infrastructure ⁴³	Facilities who did not receive 48–72-hour advance notification. ⁴⁴	156	For 148 critical facilities and infrastructure customers, this was due to the change in weather conditions. At the time Advanced Notifications were sent, these critical facilities and infrastructure customers were not in scope. Advanced Notifications were negatively impacted by outages that caused eight critical facilities and infrastructure customers who were not in scope for the PSPS event to be	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).

 ⁴² Only includes cities, counties, tribes, and community choice aggregators.
 ⁴³ Includes public safety partners who are critical facilities and infrastructure customers.
 ⁴⁴ Includes only public safety partners who are critical facilities and infrastructure customers that are required to receive notifications 48-72 hour advanced notification.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
				de-energized (seven of which had outages less than one hour) when an unplanned upstream sectionalizing device had to be used to meet the planned de-energization time.	
		Facilities who did not receive 1–4-hour imminent notifications.	628	Notifications were negatively impacted by outages that caused 22 critical facilities and infrastructure customers who were not in scope for the PSPS event to be de-energized (seven of which had outages less than one hour) when an unplanned upstream sectionalizing device had to be used to meet the planned de-energization time.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who did not receive any notifications before deenergization.	20	20 critical facilities and infrastructure customers did not receive any notifications prior to de-energization because they were de-energized due to use of an unplanned upstream device.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who were not notified at deenergization initiation.	586	Notifications were negatively impacted by outages that caused 22 critical facilities and infrastructure customers who were not in scope for the PSPS event to be de-energized (seven of which had outages less than one hour) when an unplanned upstream sectionalizing device had to be used to meet the planned de-energization time.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who were not notified immediately before reenergization.	74	Due to the concurrent wind event some outages were initially thought to be wind related and as such 26 critical facilities did not receive PSPS notifications prior to re-energization.	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Facilities who were not notified when re-energization is complete.	57	Due to the concurrent wind event some outages were initially thought to be wind related and as such 37 critical facilities and infrastructure customers did not receive PSPS	Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
				notifications when re-energization was completed.	(e.g., sectionalizing devices or unexpected weather changes).
				69 customers did not have valid contact information on file during the event. Due to changing weather conditions 2,451 customers were not in scope	. Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and
		Customers who did not receive 24–48-hour advance notifications.	3,086	advance of anticipated de- energization. (e.	notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
	All other affected customers	Customers who did not receive 1–4-hour imminent notifications.	22,188	Warning Notifications were negatively impacted by outages that caused 852 customers who were not in scope for the PSPS event to be deenergized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. 69 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who did not receive any notifications before deenergization.	635	69 customers did not have valid contact information on file during the event. The remaining 555 customers did not receive any notifications prior to deenergization because they were deenergized due to use of an unplanned upstream device.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		Customers who were not notified at deenergization initiation.	21,480	Power Off Notifications were negatively impacted by outages that caused 905 customers who were not in scope for the PSPS event to be deenergized when an unplanned upstream SCADA sectionalizing device had to be used to meet the planned de-energization time. 69 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who were not notified immediately before reenergization.	3,777	Due to the concurrent wind event some outages were initially thought to be wind related and as such 1,808 customers did not receive PSPS notifications prior to re-energization. 69 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
		Customers who were not notified when re-energization is complete.	2,648	Due to the concurrent wind event some outages were initially thought to be wind related and as such 768 customers did not receive PSPS notifications prior to re-energization. 69 customers did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information. Mitigation #3: Refining processes to identify and notify customers based on unexpected scope changes (e.g., sectionalizing devices or unexpected weather changes).
10/14/2 1 PSPS	Public Safety Partners excluding Critical	Entities who did not receive 48- to 72-hour advance notification	0	N/A	N/A
Event	Facilities and Infrastructure ⁴⁵	Entities who did not receive 1–4-hour imminent notification.	0	N/A	N/A

 $^{^{\}rm 45}$ Only includes cities, counties, Tribes, and community choice aggregators.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		Entities who did not receive any notifications before de- energization	0	N/A	N/A
		Entities who were not notified immediately before re- energization	0	N/A	N/A
		Facilities who did not receive 48–72-hour advance notification ⁴⁷	0	N/A	N/A
	Critical Facilities and Infrastructure ⁴⁶	Facilities who did not receive any notifications before deenergization	0	N/A	N/A
		Facilities who were not notified immediately before reenergization	0	N/A	N/A
		Facilities who were not notified when re-energization is complete	0	N/A	N/A
	All other affected customers	Customers who did not receive 24–48-hour advance notifications	1	One customer did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.

 $^{^{\}rm 46}$ Includes Public Safety Partners who are critical facilities and infrastructure customers.

⁴⁷ Includes only public safety partners who are critical facilities and infrastructure customers that are required to receive notifications 48-72 hour advanced notification.

PSPS Event	Notifications Sent to	Notification Failure Description	Number of Entities or Customer Accounts 35	Explanation	Mitigation
		Customers who did not receive 1–4-hour imminent notifications	628	One customer did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who did not receive any notifications before deenergization	1	One customer did not have valid contact information on file during the event.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who were not notified at deenergization initiation	628	One customer did not have valid contact information on file during the event.	Conducting ongoing customer outreach for updated contact information.
		Customers who were not notified immediately before reenergization.	35	One customer did not have valid contact information on file during the event. PG&E implemented ad-hoc Weather "All-Clear" Notifications via phone calls for this event. One customer was not notified due to not having a phone number.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.
		Customers who were not notified when re-energization is complete.	2	One customer did not have valid contact information on file during the event. PG&E implemented ad-hoc Restoration Notifications via phone calls for this event. One customer was not notified due to not having a phone number.	Mitigation #1: Conducting ongoing customer outreach for updated contact information.