



# Joint Parties: Fast Trip, Unplanned Outages, and Distribution Reliability Workshop

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# Introduction

- Fast-Trip outages are a major issue with significant and widespread customer impacts.
- To address these impacts, Joint Parties requested that the Commission open a dedicated proceeding or phase of the De-Energization Rulemaking to:
  - Review and consider the reasonableness of the IOUs fast-trip programs.
  - Create robust mechanisms for the ongoing oversight of fast-trip programs.
  - Adopt rules governing the IOUs' fast-trip programs.

# Regulation Must Apply to All Three Large IOUs



- Much more data is available for PG&E thanks to PG&E's monthly EPSS reporting requirement.
- Both SCE and SDG&E operate their own Fast-Trip programs, which have been implemented without formal program review and approval by the Commission.
- Very little information regarding SCE and SDG&E's programs is available.



# Fast Trip Impacts on Customers and Communities

## Fast Trip At a Glance – 2022 (PG&E)

2022 YTD Summary (thorough December 2022)	
Category	Count
Medical Baseline	134,622
Life Support	93,876
Critical Customers	34,841
Hospitals	185
Schools	4,573
Overall CAIDI	176
Restored <60 Mins	252
Total Outages	2,375
Total Customers Experiencing Outages	2,083,985
Unique Customers Experiencing Outages	770,441



# Fast Trip Impacts on Customers and Communities

- 574 circuits experienced Fast Trip (EPSS) Outages in 2022
- 326 circuits experienced three or fewer outages
- 248 circuits experienced four or more outages
  - 88 circuits with 8 or more outages
  - 51 circuits with 10 or more outages
  - 33 circuits with 12 or more outages
  - 15 circuits with 14 or more outages
  - 4 circuits with 17 or more outages
- 12 circuits experienced 6 or more outages in a single month



# Fast Trip Impacts on Customers and Communities

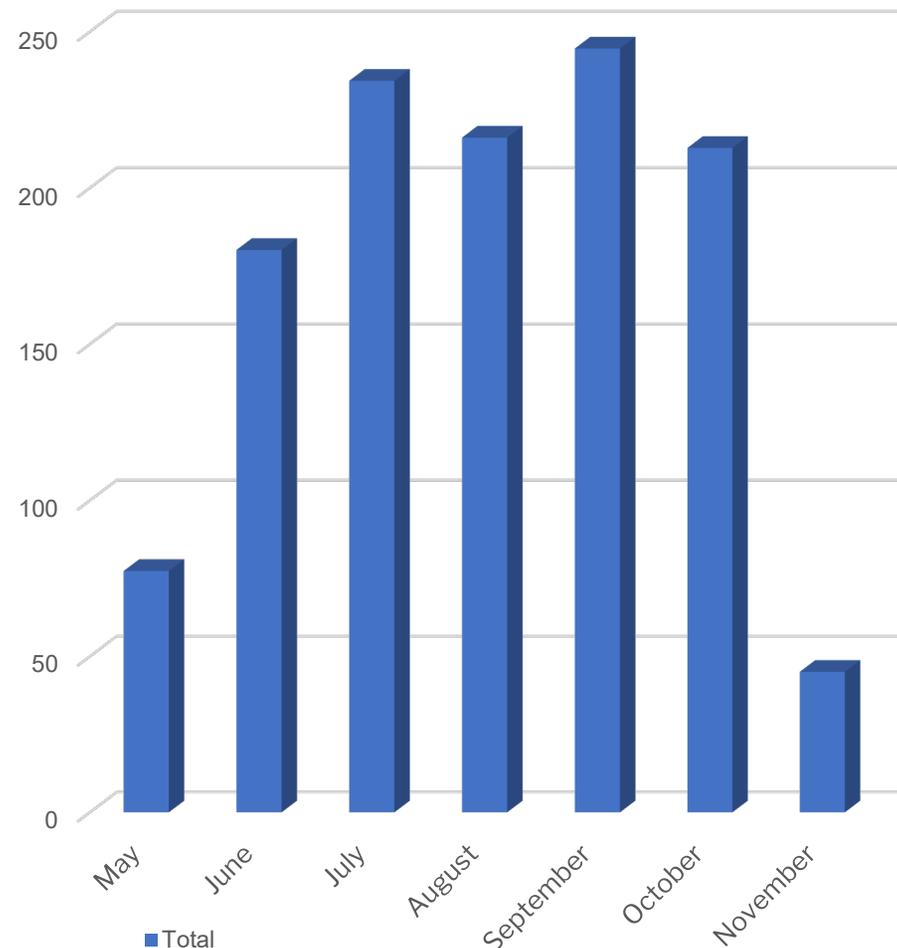
- Frequency and duration challenges
- Residential customers
- Businesses and local economies
- Schools
- Hospitals
- Broader impacts on decarbonization and electrification efforts
- Mitigation measures vs. risk reduction strategies

# Fast Trip Impacts on Customers and Communities

## Fast Trip by the Numbers

- **El Dorado County** had 108 separate outages from January through November of 2022 and 53 or 49% of these were for “unknown reasons” (not third party, animal, company initiated, equipment or vegetation related)
- **Apple Hill 2102** experienced 20 separate outages lasting over 160 hours in 2022
- **Placer County** had 131 outages during the same period and 48 or 36% of these were for unknown reasons
- **Shingle Springs 2109** had 14 separate outages resulting in over 72 hours without power in 2022
- Overall, Pioneer’s service territory experienced 239 separate outages lasting over 1,210 hours as a result of Fast Trips in 2022 (the greatest cause of these outages...unknown)
- There were 15 outages that resulted in power loss at schools 57 times
- One power outage resulted in loss of power at a hospital

### Pioneer Service Area Total Hours of EPSS Outages



## Fast Trip Impacts on Customers and Communities

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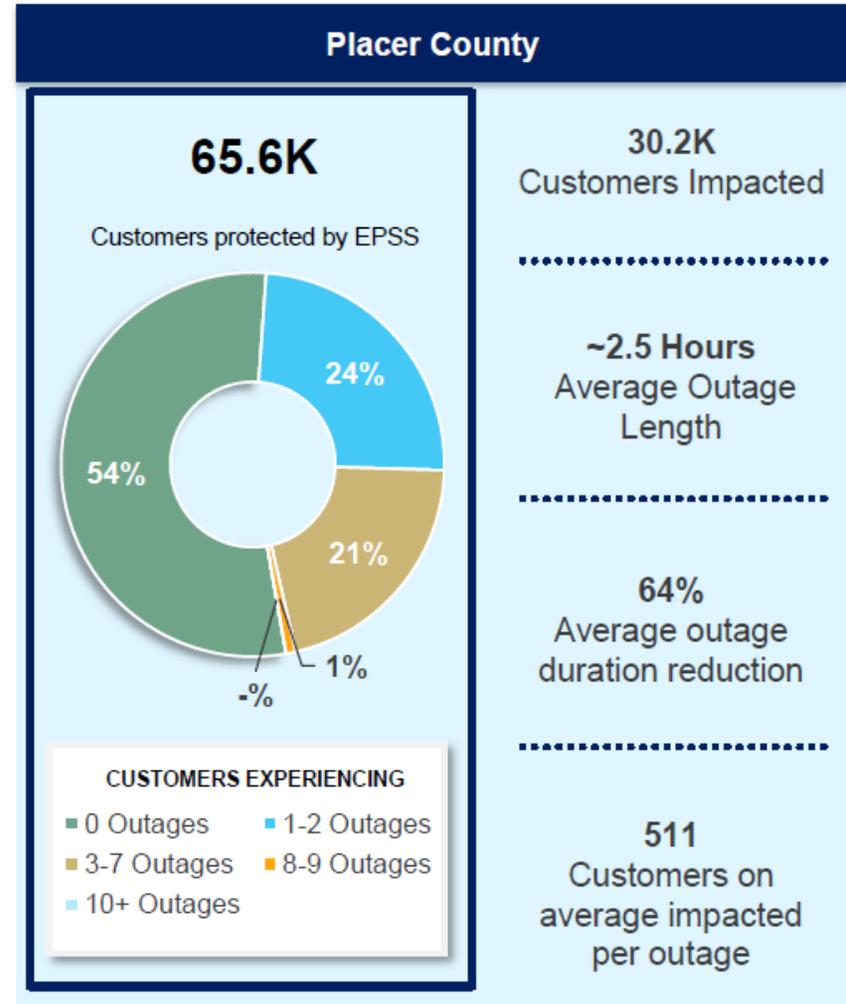
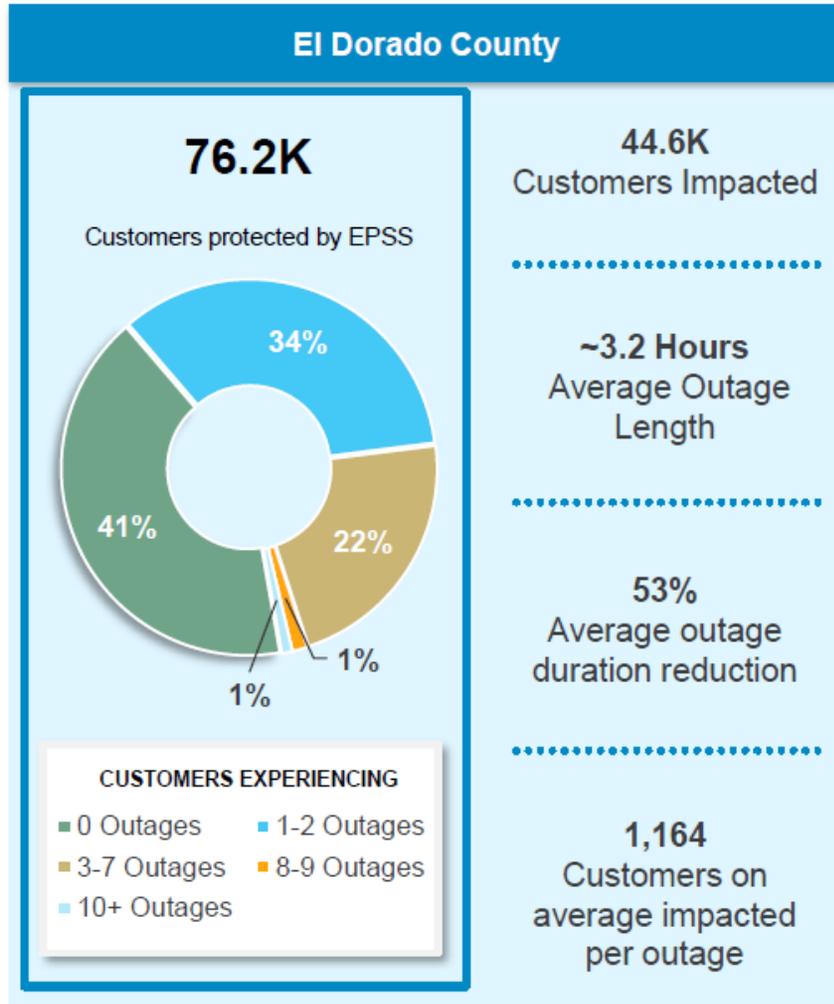


**Bonnienuok 1102:** 11/2/22 outage from 1:10 pm to 4:10 pm – 171 minutes  
11/2/22 outage from 5:26 pm to 11/3 12:25 am – 419 minutes  
11/3/22 outage from 8:21 am to 11/3 9:27 am – 66 minutes  
**3 outages totaling 656 minutes within 24 hours**

**Applehill 2102:** 10/23/22 outage from 9:49 am to 10/24 10:28 am – 1,479 minutes  
10/25/22 outage from 5:35 pm to 10/26 2:04 am – 509 minutes  
10/26/22 outage from 7:20 am to 10/26 10:46 am – 206 minutes  
**3 outages totaling 2,194 minutes in less than 4 days**

**Penryn 1105:** 9/27/22 outage from 12:33 am to 9/27 10:50 am – 617 minutes  
9/27/22 outage from 8:44 pm to 9/28 4:43 am – 479 minutes  
**Total 2 outages totaling 1,096 minutes in just over 1 day**

# Fast Trip Impacts on Customers and Communities



# Fast Trip Impacts on Customers and Communities



- The number, scope, and duration of EPSS events has increased dramatically
- Ten circuit protection zones affecting a collective 2,800 customers experienced more than 1,000 minutes of EPSS outage in 2022
- These impacted areas do not correlate well with historic PSPS impacts
- Vulnerable customers find themselves immediately unable to use required medical devices

# Fast Trip Impacts on Customers and Communities



- Both Marin & Napa Counties have seen pockets with repeated outages
  - Silverado 2105 with 17 outages (avg 4.6 hours), Silverado 2104 with 13 outages (avg 10 hours), Silverado 2102 with 13 outages (avg 7.2 hours)
- These are communities with poor cell reception - often reception goes down with the outage
- Difficult for residents to plan for and hits residents with access & functional needs hardest, causing stress and anxiety

# Fast Trip Impacts on Customers and Communities



- Prevents or interrupts customers from utilizing necessary medical devices
- Brings down elevators in multi-level buildings
- Loss of food during extended outages
- Home-based and downtown businesses have been impacted in geographically isolated cities like Fairfax
- Fairfax has had to cancel public meetings

# Local Support for Residents During Power Outages



- Local governments are thrust into triage mode
- Can work to mitigate pain and suffering caused by events
- However, they are not able to address the root of the problem - they do not operate infrastructure or deploy PSPS / EPSS events

# Local Support for Resident During Power Outages



- Put out portable stop signs at traffic lights and/or station personnel to direct traffic
- Coordinate with critical facilities (hospitals, water/wastewater facilities, skilled nursing facilities, schools, etc.) to assess the impact of the outage and provide necessary support
- Perform in-home welfare checks on residents in the local government's in-home support services program(s)
- Field large volumes of inquiries and complaints from impacted residents looking for information and/or venting frustration
- For large outages, activate Joint Information Centers to act as a central point of contact for news media and dissemination of incident information
- Provide warming or cooling centers, if the weather requires it

# Local Support for Residents During Power Outages



- The costs of this support are created by the IOUs but are externalized and borne by local governments.
- The effectiveness of local government responses can be limited by the unpredictable nature of fast trip.
- The effectiveness of local government response is hampered by the lack of outage data sharing.

# Local Support for Residents During Power Outages



- We welcome IOU support for customers (both residential and commercial) during power outages, but **mitigation actions alone miss the mark**
- For Fast Trip, what customers need is certainty that IOUs will take the actions necessary to reduce the probability of future outages (vegetation management, installation of animal exclusion devices, line segmentation, deployment of covered conductor, etc.)
- IOUs should work proactively to identify resilience areas or microgrids that can be isolated and energized during a Fast Trip Outage

# Local Support for Residents During Power Outages



- CPUC should collaborate with local governments, CCAs, and utilities to fund these projects and perform necessary building upgrades
  - The CPUC Microgrid Improvement Program could provide real, meaningful benefits if structured correctly, but not clear the final version will adequately prioritize funding for communities with greatest resilience needs.

## *Actions IOUs Can Take to Help Locals Support Customers Before, During, and After Power Outages*



- IOUs must identify the boundaries of Circuit Protection Zones in our territory and a list of customer meters in each zone
- Without this we are not able to consider investments in programs to help mitigate customers experiencing the greatest impact

## *Actions IOUs Can Take to Help Locals Support Customers Before, During, and After Power Outages*



- Once actions are taken to reduce a line segment's ignition risk, the segment safety device's trigger settings should be returned to normal. Sensitivity should be reduced as line safety is improved.
- The IOUs should only implement fast trip settings during those times and for those segments for which there is an appreciable wildfire risk. A fast-trip outage that occurs when there is no wildfire risk does not serve a meaningful safety purpose and is unreasonable.
- SCE and SDG&E should immediately begin submitting monthly reports using the same template as PG&E.
- The IOUs should immediately implement comprehensive fast-trip data sharing with public safety partners (including local gov's and CCAs). This should include real-time outage data, data regarding current and planned sensitivity settings at the line segment level, and historical outage data.
- The IOUs should collect and report data on fast-trip outage impacts on customers and communities.

# Proposed Actions



Some impacted residents and locals are feeling forgotten and abandoned

In July 2022, parties requested the CPUC to:

- Develop a standard set of rules governing all IOU Fast Trip programs
- Ensure the rules address the same issue areas as PSPS rules

Since that time, the number of Fast Trip outages more than doubled

# Proposed Actions



- We appreciate the CPUC holding this workshop to help determine how to respond to Fast Trip outages and broader system reliability concerns
- Our communities cannot have another year of Fast Trip outages like they experienced in 2022
- We strongly suggest the CPUC establish clear expectations for IOUs to take necessary actions to significantly reduce the probability of future Fast Trip outages
- We suggest prioritizing work on those circuits that experienced **four or more** outages in 2022

# Proposed Actions



The Commission should open a dedicated proceeding or phase of the De-Energization Rulemaking to:

- Review and consider the reasonableness of each IOU's fast-trip program.
- Create robust mechanisms for the ongoing oversight of fast-trip programs.
- Adopt rules governing the IOUs' fast-trip programs.
- Ensure adequate mitigation of fast-trip outages.
- Ensure adequate transparency and data-sharing with public safety partners.