



Electrical Undergrounding Plans Guideline Development Working Group #2 November 14, 2023



Safety Message

- **Take care of your posture** and sit in a comfortable position
- **Take regular breaks** to stretch, hydrate, and rest your eyes
- **Know the emergency exits and procedures** in your physical location should the need arise
- Be prepared for **earthquakes**
- **Feel something say something** and we will find a way to help



Welcome and Process Overview

- Format & Ground Rules: Recorded, Facilitated, Structured, Discussion
- Schedule:
 - Tuesdays from 10am to 12pm
 - November 21, 28 and Dec 5th if necessary
- Topics for November 21: Flexibility, Coordinating with CPUC, Workforce Development Plan.

Today's Topics



- Housekeeping Items
- Part 1: Comparing Alternative Mitigation
- Part 2: Means of Prioritization
- Future Topics, Schedule



Plan Components (8388.5(c))

(c) In order to participate in the program, a large electrical corporation shall submit to the office a distribution infrastructure undergrounding plan that shall address or include, at minimum, all of the following components:

(1) A 10-year plan for undergrounding distribution infrastructure.

(2) Identification of the undergrounding projects that will be constructed as part of the program, including a means of prioritizing undergrounding projects based on wildfire risk reduction, public safety, cost efficiency, and reliability benefits. Only undergrounding projects located in tier 2 or 3 high fire-threat districts or rebuild areas may be considered and constructed as part of the program.

(3) Timelines for the completion of identified and prioritized undergrounding projects, and unit cost targets and mileage completion targets for each year covered by the plan.

(4) A comparison of undergrounding versus aboveground hardening of electrical infrastructure and wildfire mitigation for achieving comparable risk reduction, or any other alternative mitigation strategy, such as covered conductor and rapid earth fault current limiter devices, for those prioritized undergrounding projects, evaluating the scope, cost, extent, and risk reduction of each activity, separately and collectively, over the duration of the plan. The comparison shall emphasize risk reduction and include an analysis of the cost of each activity for reducing wildfire risk, separately and collectively, over the duration of the plan.

(5) A plan for utility and contractor workforce development.

(6) An evaluation of project costs, projected economic benefits over the life of the assets, and any cost containment assumptions, including the economies of scale necessary to reduce wildfire risk and mitigation costs and establish a sustainable supply chain.

Plan Components (8388.5(c)(4))



Comparison of Alternative Mitigation

Statutory language:

(c)(4) A comparison of undergrounding versus aboveground hardening of electrical infrastructure and wildfire mitigation for achieving comparable risk reduction, or any other alternative mitigation strategy, such as covered conductor and rapid earth fault current limiter devices, for those prioritized undergrounding projects, evaluating the scope, cost, extent, and risk reduction of each activity, separately and collectively, over the duration of the plan. The comparison shall emphasize risk reduction and include an analysis of the cost of each activity for reducing wildfire risk, separately and collectively, over the duration of the plan.



Alternative Mitigation Strategies

1. The statute identifies two alternative mitigation strategies: covered conductor and rapid earth fault current limiter devices. What other mitigation strategies are currently available?
2. Describe how mitigation strategies could be combined to increase risk reduction. Which mitigation strategies could be combined?
3. Are there any existing estimates or methodologies for calculating wildfire risk reduction for individual mitigation activities and/or undergrounding?
4. Are there any existing estimates or methodologies for estimating the cost of different alternative mitigation strategies and/or undergrounding?
5. How should Energy Safety use this information to inform evaluation of the Plan?



Required Comparisons

1. Describe the comparisons that should be included in the Plan. Are the following comparisons required and/or necessary:
 - Comparison of each alternative to the baseline used for (d)(2) for each Undergrounding Project.
 - Comparison of each alternative to a proposed Undergrounding Project.
 - Comparison of risk reduction provided the Plan as a whole be to mitigation alternatives.
2. For each year of the Plan, provide analysis of risk reduction for mitigation activities comparing undergrounding to alternative mitigations.
3. How can Energy Safety use comparisons to inform evaluation of the Plan?

Reliability Discussion



Questions

Time check

Plan Components (8388.5(c)(2))



Means of Prioritization

Statutory language:

(c) (2) Identification of the undergrounding projects that will be constructed as part of the program, including a means of prioritizing undergrounding projects based on wildfire risk reduction, public safety, cost efficiency, and reliability benefits.

Only undergrounding projects located in tier 2 or 3 high fire-threat districts or rebuild areas may be considered and constructed as part of the program.



Means of Prioritization

- *wildfire risk reduction,*
- *public safety,*
- *cost efficiency,*
- *reliability benefits.*

How should each of the factors be defined? What information, input, sources should be used for each of the four factors?

When should the means of prioritization be applied?

What principles should guide how these four factors are applied for prioritization. Should the factors be applied equally or weighted? Is one factor more important than the others?

Wrapping Up and Planning

- Additional Public Comment on today's topics
- Questions about today's discussion
- Plan for next working group, including preparing for discussion
- Future topics for working group and/or written comments
- Questions about housekeeping items like e-filing

Upcoming Working Groups

Topics

- Flexibility/Changes during 10-year period
- Coordinating with CPUC
- Workforce Development Plan (8388.5(c)(5))
- Costs and Sustainable Supply Chain (8388.5(c)(6))
- Reporting and Compliance
- Guiding Principles for evaluating Plan
- Data