Electrical Undergrounding Plans Guideline Development Working Group #1

November 7, 2023

Welcome and Process Overview

- Format: Recording, Facilitated, Structured, Discussion
- Schedule:
  - Tuesdays from 10am to 12pm
  - November 7, 14, 21, 28 and Dec 5th if necessary
- Topics for November 14: Comparing and Prioritizing
- Possible Future Topics: Coordinating with CPUC, Workforce Development Plan, Sustainable Supply Chain, Reporting and Compliance, data collection/sources

Today's Topics

- Housekeeping Items
- Part 1 (target end time 11:10)
    - Definition of Outage Programs
    - Possible Baseline and definition of "Substantially Increase" for Reliability
    - Possible Baseline and definition of "Substantially increase" for Wildfire Risk
- What is an "Undergrounding Project" (target end time 11:40)
- Future Topics, Schedule

“Outage Program”

Statutory language:

The office may only approve the plan if the large electrical corporation has shown that the plan will substantially increase electrical reliability by ***reducing the use of public safety power shutoffs, enhanced powerline safety settings, deenergization events, and any other outage programs***, and substantially reduce the risk of wildfire. Before approving the plan, the office may require the large electrical corporation to modify the plan.

“***Deenergization event***” means the proactive interruption of electrical service for the purpose of mitigating or avoiding the risk of causing a wildfire.

“Outage Program” (Con’t)

Definition of Outage Program:

1. Should Outage Program only include outages initiated by utility?
2. Should Outage Program be limited to outages related to wildfire mitigation?
3. Should Outage Program include other external factors (storms, earthquake)?
4. Should Outage Program include planned and/or unplanned maintenance?
5. Should fast trip programs be included?

“Outage Program” (Con’t)

Other Comments:

- Reminder: Outage Programs/Reliability for 8388.5(d)(2) does not need to be the same as for 8388.5(c)
- PG&E: include programs intended to restore electric service when it has been interrupted.
- Analysis should include any increase in outages expected after undergrounding (TURN)
- Data/Information to be discussed in later working groups.

Reliability Baseline

Questions to Answer

Propose a methodology for determining a level of reliability that should be used as the baseline level of reliability against which any assessment of whether the use of PSPS, EPSS, de-energization and other outage programs is increased or decreased is measured.

Should the reliability baseline be set as of the date of plan submission, application approval, or another date?

Address whether the proposed baseline can be determined using existing data (and if so, where that data can be accessed), or whether a new data set would be necessary.

Reliability Baseline

Date for Reliability Baseline:

A. as of **date** of plan submission

B. Decide at time of plan submission

C. As of **year** of plan submission

D. time of plan **approval** (baseline should incorporate all projects expected to be complete by projected date of approval).

Reliability Baseline

Methodology

- All calculations regarding reductions in outage number and duration for both undergrounding and alternatives should be based on models that are transparent with supporting data.
- A reliability baseline should represent a reasonable estimate of what would have happened if undergrounding was not implemented.
- Circuit or local level baseline: reliability baselines most meaningful if established at a local level, such as by circuit
- include significant time period to capture both seasonal variation in years as well as the introduction of technologies like

Reliability Baseline

Data Sources for Reliability

PG&E: existing data

SCE: using existing outage data and metrics captured through a utility's outage management systems

MGRA: outage data collected as part of OEIS requirements to support the WMPs and their updates appears to be sufficient to estimate outage rates and durations

SDG&E: CPUC annual report (per D.16-01-008). Not circuit level unless it is included within the top 1% of the worst performing circuits, but that data is currently available within the utility

Reliability - “Substantial Increase”

- a “large or considerable amount” and must have costs and time factored in
- A substantial reduction should be notable by residents of affected areas.
- Should it include both frequency and duration of outage?
- Wait until guidelines are set before setting precise threshold
- A 50% decrease of outage minutes in areas rarely affected by power shutoff and a 90% decrease in outage minutes in areas often affected by power shutoff
- not necessary to adopt any one definition or quantification of substantiality today.
- Costs and Time – next slide

Reliability - “Substantial Increase”

Time:

- increase in reliability it will achieve by the end of the 10 years
- multi-decade lifespan of undergrounding,

Separate by utility

- Each utility should define and justify substantial for itself
- Baseline should be same for all utility (or set using same methodology)

Costs Discussion

- **Explain how costs could be incorporated**
- **Explain how this differs from CPUC evaluation of cost**

Wildfire Risk Baseline

A. Wildfire risk baseline should be based on the location and state of utility assets at the date the utility took a snapshot of its operational system for purpose of modeling (Cal Advocates)

B. As of time or date or year of plan submission

C. Each utility determine baseline date at plan submission

D. As of time of approval (incorporating all mitigation expected to be completed at approval)

Reliability Discussion

Questions

Time check

Wildfire Risk Baseline

- Use wildfire risk models developed for WMP
- should account for a reasonable seasonal and yearly variation and improvements in wildfire mitigation technology

- Baseline should be defined in terms common to all utilities.
- Baseline should be different (due to differences in wildfire risk factors and wildfire risk models)

- Map across entire service territory not just HFTD
- Circuit or circuit segment (that are targeted for undergrounding) to see full impact of risk reduction

Wildfire Risk – “substantial increase”

Percentage of Risk Reduction:

- 90% reduction in wildfire ignition risk on targeted circuit-segments
- 80% reduction from the baseline risk on circuit or circuit-segment for which the undergrounding is being considered

Incorporate Information on Cost, Timeline and Prioritization.

Baseline and Wildfire Risk

Questions

Time check

Undergrounding Project

DISCUSSION POINTS FOR TODAY

a) No minimum or maximum or other required mileage or artificial parameter.

b) ES and CPUC should have same definition.

c) a self-contained set of activities at a circuit or sub-circuit level, which can be independently assessed for its ability to reduce wildfire risk, cost and timing. Projects can be scheduled, mapped, and prioritized. (MGRA/TURN)

d) Undergrounding Projects have two elements: (1) removing overhead wires that pose wildfire risk, and (2) installing the replacement solution. (Cal Advocates)

e) Circuit Segment. (PG&E, SCE, SDG&E)

f) Are Undergrounding Projects required to have a baseline for comparison? (see next slide)

Undergrounding Project (cont.)

Are Sub-Projects "Undergrounding Projects"?

PG&E : break Undergrounding Project into sub-projects as they near construction.

Questions:

1. Should a Subproject by itself be considered an Undergrounding Projects?
2. If a Subproject doesn't have a baseline risk assessment, can it be considered an Undergrounding Project?
3. What should happen if some Subprojects are done, but part of the Undergrounding Project takes longer than expected (or does not get built)?

Undergrounding Project

Questions

Time check

More discussion next working group

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

Planning

Improvements to Working Group structure?

Topics

- Comparing and Prioritizing
- Flexibility/Changes during 10-year period
- Coordinating with CPUC
- Workforce Development Plan, Sustainable Supply Chain
- Reporting and Compliance
- Guiding Principles for evaluating Plan
- Data