State of California – A Natural Resources Agency

OFFICE OF ENERGY INFRASTRUCTURE SAFETY

To: Stakeholders

From: Kristin Ralff Douglas

Date: November 30, 2023

MEMORANDUM

Re: **Working Group #5 Topics**

2023 Undergrounding Plans (Docket #2023-UPs)

Topics for Working Group #5 on Development of Guidelines for the 10-Year Undergrounding Distribution Infrastructure Plan (Undergrounding Plan)

The Electrical Undergrounding Division of the Office of Energy Infrastructure Safety (Energy Safety) is developing guidelines for large electrical corporations to submit a 10-Year Undergrounding Distribution Infrastructure Plan (Undergrounding Plan) pursuant to Public Utilities Code sections 8385 and 8388.5. The questions below are part of Energy Safety's ongoing process to develop these guidelines and will be discussed at the December 5, 2023 working group meeting. The working group discussion will benefit from your responses.

Part A. Costs

Under section 8388.5, Energy Safety is responsible for evaluating increased reliability and decreased risk of wildfire in the Undergrounding Plan. CPUC is responsible for reviewing costs for the Plan. However, the Undergrounding Plan itself will include certain cost-related information. The questions below are intended to help Energy Safety develop guidelines for including these costs in the Undergrounding Plan.

1. Cost Efficiency

*8388.5(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.*

Generally, cost efficiency is defined as the process of minimizing cost while maximizing value. Cost effectiveness, on the other hand, refers to the value of the outcome compared to the expenditures. Cost effectiveness is calculated by dividing the total cost by outcome. Cost efficiency is typically calculated as a ratio between cost and benefit. However, the CPUC often uses the terms cost effectiveness and cost efficiency interchangeably.

For purposes of prioritizing undergrounding projects under the Undergrounding Plan, how should cost efficiency be defined? How should cost efficiency be calculated?

2. Unit Cost Targets

8388.5*(c)(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.*

a) For purposes of unit cost targets, how should "unit" be defined? Is the definition of unit for the cost unit the same as the unit for the risk unit? Are the following definitions for cost and risk appropriate in this context?
    - Cost measured by mile of undergrounded line constructed.
    - Risk measured by mile of overhead replaced.

b) How should completion targets be set in the Undergrounding Plan? Should the Undergrounding Plan's completion targets be used to determine compliance with the Undergrounding Plan?

3. Cost Comparison

Section 8388.5(c)(4) requires that the Undergrounding Plan include a comparison of undergrounding and other mitigation strategies. The comparison should evaluate the cost of each action and the cost of each activity. Specifically, the statute states the comparison should evaluate *"the scope,* ***cost****, extent, and risk reduction* ***of each action*** *separately and collectively, over the duration of the plan. The comparison should 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.*"

a) What are the differences between "cost of each action" and "cost of each activity" in this context? Are action, activity, and mitigation strategy synonymous in section 8388.5(c)(4)?

b) Should the cost evaluation of each mitigation strategy be compared to the same baseline that is adopted evaluating undergrounding projects?

c) Should the cost of evaluation of each mitigation strategy also be compared to the cost evaluation of the corresponding undergrounding project?

d) If "action" and/or "activity" do not refer to the mitigation strategy, what do they refer to? Is "activity" intended to denote a component of the mitigation strategy? For example, would covered conductor and EPSS be treated as separate activities for the purpose of analyzing cost? Would they also be treated as different actions?

4. Cost Containment and Economies of Scale

Section 8388.5(c)(6) requires that the Undergrounding Plan include "*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.*"

a) What should be included in project costs?

b) What should be included in "economic benefits"?

c) What details should be included in the description of "cost containment assumptions"?

d) Should the guidelines include any specific direction for "economies of scale necessary to reduce wildfire risk and mitigation costs"?

5. Cost Information Required for Application

8388.5(e)(1) Upon the office approving a plan pursuant to paragraph (2) of subdivision (d), the large electrical corporation shall, within 60 days, submit to the commission a copy of the plan and an application requesting review and conditional approval of the plan's costs and including all of the following:

(A) Any substantial improvements in safety risk and reduction in costs compared to other hardening and risk mitigation measures over the duration of the plan.
*(B) The **cost targets**, at a minimum, that result in feasible and attainable cost reductions as compared to the large electrical corporation's historical undergrounding costs.*
*(C) How the **cost targets** are expected to decline over time due to **cost efficiencies** and **economies of scale**.*
(D) A strategy for achieving cost reductions over time.

Section 8388.5(e)(1) sets forth cost information that must be included in an application submitted to the CPUC. Section 8388.5(c) specifies cost information to be included in the Undergrounding Plan which will be reviewed by Energy Safety. The following terms are used in both section 8388.5(e) and section 8388.5(c): *cost targets, cost efficiencies, economies of scale.*

Should these terms have the same definition for both sections even though the context and purpose of section 8388.5(e) and 8388.5(c) are different?

Part B. Supply Chain

Section 8388.5(c)(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.

1. What are the elements that should be included in a sustainable supply chain plan for a 10-year Undergrounding Plan?

2. What is the timeframe that the sustainable supply chain plan should cover? Should it start at the beginning of the Undergrounding Plan? Should it extend beyond ten years to ensure that maintenance supplies are covered? Should it cover the life of the assets?

3. Should the sustainable supply chain plan cover sourcing and purchasing/leasing of materials?

4. Should the sustainable supply chain plan provide a plan be broken down by type of supplies and equipment?

5. Should the sustainable supply chain plan include cost related information and outline the economies of scale?

Part C. Guiding Principles

Energy Safety is considering whether a set of guiding principles would be useful to articulate the high-level objectives of Undergrounding Plans. These guiding principles would serve as a framework to assist in the development of the guidelines. The guidelines, in turn, would build on the guiding principles by incorporating more specific instructions and requirements for Undergrounding Plans.

Working Group #5 will provide an opportunity to propose guiding principles and discuss areas that would benefit from guiding principles. Stakeholders may suggest guiding principles in advance by emailing SB844@energysafety.ca.gov. Stakeholders will also have the opportunity to recommend specific guiding principles in post-Working Group comments. Instructions for post-Working Group comments will be posted in early December.