Southern California Edison
2023-WMPs – 2023-WMPs

DATA REQUEST SET S P D - S C E - 2 0 2 3 - 0 0 3

To: SPD
Prepared by: Tram Camba
Job Title: Senior Advisor
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Response Date: 6/9/2023

Question 01:
Regarding costs inherent in SCE's undergrounding grid hardening mitigation initiative projects, used in calculating cost efficiency and project feasibility as described in the 2023-2025 WMP (p. 256-8 and p. 753), to date and looking forward:
a. What was the average cost per circuit mile for undergrounding in 2022, 2021, and 2020, in the HFTD, non-HFTD, and Territory-wide?
b. What is the average cost per circuit mile expected in 2023, 2024, and 2025, in the HFTD, non-HFTD, and Territory-wide?
c. For sub-parts a. and b., explain expected, average year-over-year cost changes.

Response to Question 01:
a. What was the average cost per circuit mile for undergrounding in 2022, 2021, and 2020, in the HFTD, non-HFTD, and Territory-wide?

The table below shows the average cost per circuit mile for 2021 and 2022 for completed targeted undergrounding (TUG) projects specific to wildfire mitigation. SCE did not install any TUG miles in 2020. All of these miles were installed in SCE's HFTD.

Table 1: Average Unit Costs for TUG Projects in HFTD

	Average Unit Cost* in HFTD
Completed TUG Projects in 2021 (2022$)	$ 1.024M
Completed TUG Projects in 2022 (2022$)	$ 1.686M

The next table shows the average cost per circuit mile for completed Rule 20A projects by HFTD and non-HFTD in 2020-2022. Please note that Rule 20A projects have shorter lengths, from a few hundred feet to less than 2 miles, and therefore the costs were calculated per foot and interpolated into miles. Also, the Rule 20A unit cost in HFTD was based on one project.

Table 2: Average Unit Costs for Rule 20 Projects in HFTD and non-HFTD

	Average Unit Cost* in HFTD	Average Unit Cost* in non-HFTD
Completed Rule 20A Projects in 2020 (2022$)	No Work Completed	$ 4.769M
Completed Rule 20A Projects in 2021 (2022$)	$ 2.456M	$ 4.635M
Completed Rule 20A Projects in 2022 (2022$)	No Work Completed	$ 4.229M

*The average unit costs are calculated using the total costs associated with the miles installed in 2021 or 2022, which could span multiple years.

b. What is the average cost per circuit mile expected in 2023, 2024, and 2025, in the HFTD, non-HFTD, and Territory-wide?

The table below shows the expected average cost per circuit mile for future targeted undergrounding projects in 2023-2025 in the HFTD. These unit cost assumptions are consistent with those included in SCE's 2025 General Rate Case.

Table 3: Forecast Average Unit Costs for TUG and Rule 20A Projects

	2023	2024	2025
Forecast TUG Unit Cost in HFTD (2022$)	$ 2.210M	$ 2.210M	$ 4.141M
Forecast Rule 20A Unit Cost (2022$)	$ 4.458M	$ 4.678M	$ 4.792M

c. For sub-parts a. and b., explain expected, average year-over-year cost changes.

For sub-part a, the average year-over-year cost changes are due to inflationary cost pressures and contract rate increases.

For sub-part b, the average year-over-year cost changes are due to the level of difficulty of the projects. The primary cost driver of the underground project is the level of difficulty in the terrain and topographical locations. To assess these factors, SCE characterizes the difficulty of each TUG project as low, medium, high, or not feasible. A low difficulty level is associated with flat and rural areas, requiring less civil construction and minimal paving (even no paving if it is a dirt road). A medium difficulty level is associated with a mix of residential and rural areas. A high difficulty level is associated with rocky and hilly terrain and a high density of population, requiring extensive

civil construction and significant re-routing. Generally speaking, the miles installed in 2021 and 2022 had a low difficulty rating and did not include secondary and services work. The difficulty level of those miles is not representative of the difficulty level of the miles SCE expects to underground in 2023, 2024, and 2025.