THE UTILITY REFORM NETWORK DATA REQUEST
TURN-DR-006
SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014
DATE RECEVIED: AUGUST 6, 2021
DATE RESPONDED: AUGUST 20, 2021

Question 1:
The following questions relate to the WiNGS model workpaper (Excel version) provided to TURN on July 26, 2021 in response to the request that SDG&E styled as TURN Data Request 5-1:

a. Please explain why some undergrounding and covered conductor miles show 0 miles for "Overhead Miles to Mitigate."

b. Please provide the unit cost per mile for undergrounding projects and covered conductor projects assumed in this workpaper, separately, reflecting any variations in those assumptions within or among circuits. Please provide the response in Excel with all supporting workpapers, assumptions, and calculations.

c. Please provide the percentage of poles assumed to be replaced due solely to covered conductor deployment.

d. Please provide historical per overhead circuit mile costs of covered conductor deployment for the period 2015-2020 on an annual basis, including a breakdown of all major cost drivers in supporting workpapers (e.g., labor, materials, pole replacements, etc.). Please provide this information in Excel with all supporting workpapers and calculations.

e. Please provide historical costs of undergrounding and corresponding overhead circuit miles undergrounded for the period 2015-2020 on an annual basis, including a breakdown all major cost drivers in supporting workpapers (e.g. labor, materials, permitting, etc.). Please provide this information in Excel with all supporting workpapers and calculations. The requested information should also include a breakdown by projects in rural versus urban areas and on a more granular basis if available.

f. On a per overhead circuit mile basis (i.e. assuming the mitigation is deployed across the entire mile) please provide and explain the mitigation effectiveness (%) assumed for covered conductor and undergrounding, respectively. Please provide all data, workpapers, calculations, and sources related to this response.

g. Please explain and provide an example of how Sempra chooses between undergrounding and covered conductor, and how this is informed by the WiNGS model.

SDG&E Response 01:

a. In researching this question, SDG&E realized that these "0" data values were an error. Within the attached spreadsheet, SDG&E corrects this error, and also made some additional updates to incorrect references.

SDG&E Response 01-CONTINUED:

These updates are not significant, but they do change some of the values in the table.

Please see tab "Updated Workpaper" in the attached spreadsheet "TURN DR6 Excel Responses_162.xlsx."

b. Please see tab "Question b" in attached spreadsheet "TURN DR6 Excel Responses_162.xlsx."

c. Pole replacements for covered conductor are assumed to be primarily focused on wood poles with some steel pole replacements based on engineering and design studies. Due to the minimal deployment of covered conductor projects to date, replacement of steel poles remains uncertain. As more covered conductor projects get deployed, design and engineering studies will determine whether steel poles need to be replaced. On the segments in the spreadsheet workpaper provided with this response, the estimated overall percentage of total poles to be replaced due to solely covered conductor is between 70 – 80%.

d. Please see tab "Question d" in attached spreadsheet "TURN DR6 Excel Responses_162.xlsx."

e. Please see tab "Question e" in attached spreadsheet "TURN DR6 Excel Responses_162.xlsx."

f. Effectiveness of undergrounding was estimated to be at 100% while the effectiveness of covered conductor was estimated to be at 62%. These assumptions are based on SME judgement that was informed by recent efficacy studies for other programs. For example, bare conductor hardening efficacy studies show that prior hardening efforts reduced ignition rate by ~47%.[1] With that data point in mind, SDG&E's SMEs evaluated different causes of ignitions and assumed that an additional 15% reduction could be achieved with covered conductor because it has the potential to reduce ignitions caused by foreign object contacts.

   Please see tab "Question f" in the attached spreadsheet "TURN DR6 Excel Responses_162.xlsx" for more detailed breakdown of assumptions.

g. SDG&E considers multiple factors when selecting between undergrounding and covered conductor options for segment mitigation. Such factors include segment ranking in terms of wildfire risk, potential risk reduction, overhead length as well as potential PSPS reduction.

[1] 2021 Wildfire Mitigation Plan Update, Section 4.4.2.3.

SDG&E Response 01-CONTINUED:

These initial considerations could change as scoping and design take place to finalize solutions. In general, segments with a higher wildfire risk and risk reduction potential would be considered for potential underground whereas lower ranking segments might be considered for covered conductor.

For example, segment 222-1364R is ranked #2 in overall wildfire risk and represents a potentially good candidate for underground whereas segment 214-647R is ranked #94 and represents a potentially good candidate for covered conductor.