Southern California Edison
WSD-011 – Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4) related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority

DATA REQUEST SET C a l A d v o c a t e s - S C E - 2 0 2 1 W M P - 0 9

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Received Date: 3/4/2021

Response Date: 3/8/2021

Question 007:
The following questions relate to Table 1 of the non-spatial WMP data tables. All questions specifically concern inspections of distribution facilities in HFTD areas. For purposes of this data request, "high-priority findings" mean Level 1 and Level 2 inspection findings.
For distribution High Fire Risk-Informed (HFRI) Inspections and Remediations, SCE states that "the frequency of inspections varies by the location specific risk within SCE's HFRA and emergent conditions." List and explain in detail the criteria SCE uses to determine the frequency of HFRI inspections, including the location-specific risks and emergent conditions considered and the relationships between the location-specific risks and emergent conditions to the frequency of inspections.

Response to Question 007:
SCE's wildfire risk model has two main elements: The Probability of Ignition (POI) and the consequence of a wildfire (i.e., it takes into account both sides of the "risk bowtie"). SCE's POI model was developed to estimate the probability of ignition at each specific structure location. The consequence model developed by Technosylva was also created at a location specific level such that the consequence score reflects the location specific fire damage potential in the event there is an ignition at that location. When SCE develops its annual inspection plan, both the probability and consequence of ignition are considered. SCE created a 4 x 4 matrix with one dimension of the matrix representing four levels of POI risk and the other dimension representing four levels of consequence. The four levels are made up of 25 percentile groupings. For example, the Level 1 POI includes the top 25% of POI structure scores. Similarly, Level 4 includes the lowest 25% of POI structure scores. Each structure is mapped to a box in the matrix based on its POI level and consequence level showing the risk distribution of the structures. The structures mapped to red boxes will be inspected in 2021. The structures mapped to the blue boxes remain on the minimum compliance inspection schedule of every 5 years. In developing the annual inspection plan, SCE balances risk reduction, resource availability and costs. In addition, any structures due for a compliance inspection in 2021, regardless of which box they are mapped to, will be included in 2021 scope. The matrix below is also included in SCE's 2021 WMP update on page 240.

Visualization of Distribution Structures Risk Analysis

Probability of Ignition		Level 4	Level 3	Level 2	Level 1	
	Level 1	2.3% Annual 0.1%	1.1% Annual 0.6%	0.6% Annual 2.4%	0.5% Annual 15.2%	% of Total Population % of Total Risk
	Level 2	4.6% Annual 0.1%	2.2% Annual 0.6%	1.5% Annual 2.8%	1.2% Annual 19.8%	
	Level 3	7.5% Compliance 0.1%	3.9% Annual 0.6%	3.0% Annual 3.2%	2.5% Annual 23.6%	
	Level 4	25.7% Compliance 0.1%	15.9% Compliance 0.6%	14.5% Annual 3.6%	13.0% Annual 26.3%	
		Level 4	Level 3	Level 2	Level 1	

Consequence (Technosylva)

In addition to the risk analysis described above, in 2020, SCE identified emergent risk during the fire season due to high winds, dry conditions and accumulation of dry fuel, which were above average fire weather conditions. SCE identified 17 Areas of Concern (AOCs) in 2020 where overhead structures were re-inspected prior to fire season to identify changes in asset condition that could pose ignition risks. SCE's Fire Science team considered fire history, weather conditions, fuel type, exposure to wind, and egress to determine these AOCs. SCE's 2021 inspection forecast includes 30,000 potential additional distribution inspections for AOCs identified in 2021, though the actual inspections will depend on observed emergent fire risks. Depending on the volume of work driven by emergent risks, resource availability, and execution capacity, SCE might have to reprioritize the total volume and location of inspections.