

Southern California Edison
2022-WMPs – 2022 Wildfire Mitigation Plan Updates

DATA REQUEST SET O E I S - S C E - 2 2 - 0 0 2

To: Energy Safety
Prepared by: Arianne Luy
Job Title: Engineer
Received Date: 3/15/2022

Response Date: 3/17/2022

Question 05:

System Hardening Workshop Presentation Slide 4:

- a. On slide 4 of the System Hardening presentation given during the workshop on March 10, 2022, SCE discusses retrofitting covered conductor structures with vibration dampeners.
 - i. What percentage of covered conductor structures are being retrofitted with vibration dampeners?
 - ii. How is SCE determining and prioritizing which structures are retrofitted with vibration dampeners?
 - iii. Is SCE still installing vibration dampeners with all new covered conductor installations? If not, how does SCE determine when to include vibration dampeners.

Response to Question 05:

- i. Currently, SCE plans to retrofit vibration dampers on approximately 13% of structures installed prior to the vibration damper standard being published in October 2020.
- ii. As stated in its 2022 WMP Update on pp. 303-304, SCE used terrain and wind conditions to conduct an analysis that would determine the vibration susceptibility of its covered conductor installations. Note that SCE only focused on installations that were 3,000 ft. and below in elevation, which is in line with SCE's standard vibration damper installation requirements. The three categories for vibration susceptibility were high, medium, and low. Additionally, SCE used theoretical calculations that quantifies the effect of vibration activity on the covered conductor useful life. Inputs to this calculation include wind conditions and conductor tensions.

Based on these analyses, SCE deemed that it would be prudent to retrofit vibration dampers on covered conductor installations in high and medium vibration susceptibility areas that had a theoretical useful life below 45 years. SCE is prioritizing structures in high vibration susceptibility areas and prioritizing structures with a lower theoretical useful life.

- iii. For new installations and if supply is available, SCE installs vibration dampers on full tension spans in areas that are 3,000 ft. and below in elevation. In areas above 3,000 ft. in elevation, SCE installs vibration dampers when the 336 (30/7) ACSR covered conductor is used or if vibration on the conductor is observed through inspections. Note that due to supply constraints caused by the global supply chain issue, SCE permitted an interim deviation from the standards that allows installation of covered conductor without dampers. SCE ask crews to self-report installations that followed this interim deviation and has tracked installations constructed as early as February 2021. For these installations, SCE plans to retrofit vibration dampers in high and medium susceptibility

areas similar to the retrofit program detailed in section 7.3.3.3. The intent of this retrofit program is to install vibration dampeners in all locations that meet this criteria over multiple years.