Southern California Edison
2023-WMPs – 2023-WMPs

DATA REQUEST SET C a l A d v o c a t e s - S C E - 2 0 2 3 W M P - 0 8

To: Cal Advocates
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Response Date: 4/7/2023

Question 01:
Referring to section 6.2.1.1 Multi-Attribute Risk Score (MARS) Framework, on pp. 98 -101 of your WMP:
a) What specific criteria were used to select the 403 additional weather scenarios added by SCE to represent wind-driven and fuel-driven wildfires?
b) How does SCE validate the accuracy and reliability of the wildfire simulations, especially considering the constraint of an eight-hour unsuppressed burn period?
c) What are the limitations and uncertainties associated with not including a "probabilistic assessment of suppression based on historical suppression data" in the wildfire simulations?
d) How do the 19 custom fuel models, added to the LandFire 2016 dataset, impact SCE's wildfire consequence estimates?
e) Did SCE develop the 19 custom fuel models internally?
f) What was the rationale behind the development of these custom fuel models referenced in part (d) above?
g) SCE states, "Climate change influenced forecast weather conditions are not included at this time." How does SCE plan to incorporate climate change influenced forecast weather conditions into its wildfire consequence estimates?

Response to Question 01:

a. The decision to expand the weather scenarios to include more critical weather days was based on fire science expertise. SCE's Fire Scientist expanded the number of days to account for critical weather events that have occurred across a more widespread area of SCE's service territory.

b. Technosylva calibrates its wildfire algorithm by comparing simulated results to the monitored progression of actual wildfires using the National Interagency Fire Center (NIFC) FireGuard detection and monitoring system across specific fuel types.

c. Some of the significant limitations associated with including a probabilistic assessment of suppression based on historical suppression data include the lack of operational data associated with the vast majority suppression activity, including decision making, agency responsibility assessment and assignment, response time from initial dispatch to detection to response, resourcing decision making processes, and interagency coordination agreements and processes.

d. These additional 19 custom fuel models provide improved simulation results because they better

represent the nuances in fuel characteristics such as fuel loading, which affects fire propagation and the overall behavior of wildfires. For example, a new fuel model for Timber Understory (TUML1 Technosylva 2022) was developed to compensate for the consistent and significant underprediction in the rate of spread (ROS) of S&B Timber Understory (TU5) fuel model.

e. No, the custom fuel models were developed by Technosylva.

f. These additional 19 custom fuel models were developed to both, i.) better represent the progression of wildfires across specific fuel types in the original 2005 Scott and Burgan (S&B) fuel models, such as timber understory (TU5) and, ii.) to represent fuel types not present in the original S&B fuel models.

g. SCE is developing a methodology to adjust live and dead fuel moisture based on climate projection data from the California Fourth Climate Change Assessment. Once these adjustments have been made, SCE will re-run wildfire ignition simulations across the landscape for a 2030 analog year and compare the present-day consequences to potential future consequences using a consistent 8 hour burn period. The results will be used to determine additional locations (if any) that may need to be addressed in future applications.