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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Received Date: 4/5/2023

Response Date: 4/10/2023

Question 07:
Referring to section 6.7.2.2 Asset Specific Predictive Models, on p.178 of your WMP, SCE states that:
In 2023, SCE will develop and evaluate an additional predictive model for secondary conductor to more accurately identify equipment related failures for secondary conductor that contribute to [Probability Of Ignition] POI sub-drivers. This will differentiate between primary and secondary conductor failures (both [Equipment Facility Failure] EFF and [Contact by Foreign Object] CFO). Anticipated benefit: Increased granularity in outage and ignition calibration for primary versus secondary conductor will improve model prediction (separate models for primary vs secondary) and risk calculations.
a) What are the key challenges and limitations of SCE's current predictive model that necessitate the development of a separate model for secondary conductor failures?
b) Please describe SCE's planned approach for developing and evaluating the additional predictive model for secondary conductor failures in 2023.
c) When does SCE expect the secondary conductor predictive model to be complete?
d) What data sources and factors will be incorporated into the secondary conductor predictive model?
e) How does SCE plan to validate the performance and reliability of the new predictive model for secondary conductor failures once it is developed?
f) What specific improvements in model prediction and risk calculations does SCE anticipate?
g) How does SCE intend to use the new secondary conductor predictive model to select or refine its mitigation activities?

Response to Question 07:

a) In section 6.7.2.2, SCE states that it does not have a predictive model specific to secondary conductor. SCE's current OH Conductor model was based on primary distribution conductor data and attributes, and did not consider secondary conductor attributes as part of its predictive variables which will help differentiate between primary and secondary conductor POI sub-drivers
b) SCE will gather data associated with secondary conductors and develop a predictive model that specifically evaluates secondary conductor probabilities of ignition sub-drivers. Predictive model results and validation would be conducted to assess model performance (e.g. Receiver Operator Characteristics (ROC) Curve, Confusion Matrix, Precision/Recall). Lastly, subject matter experts would be involved in assessing the applicability of PoI to mitigation strategy.

c) SCE is actively developing the secondary conductor predictive model and plans to have a model for initial assessment available by the end of Q2 2023.
d) Atmospheric Data Solutions (ADS) weather data, linear asset data, and outage data will be incorporated into the secondary conductor predictive model.
e) Please see the response above to part b).
f) Increased granularity in outage and ignition calibration for primary versus secondary conductor is intended to improve model prediction (separate models for primary vs secondary) and risk calculations.
g) SCE would enhance the Distribution OH Conductor PoF with the new secondary PoF model data to represent primary vs secondary failures more accurately.