

*Southern California Edison*  
**WSD-011 – WSD-011**

**DATA REQUEST SET CalAdvocates - SCE - 2021 WMP - 04**

**To: Cal Advocates**  
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**Response Date: 2/21/2021**

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**Question 004:**

For the following structure:

□ Support Structure ID: 4869798E (Wood Pole, Lat/Long: 34.47843933105469, -118.68360900878906)

Provide inputs and outputs of the WRRM as follows:

- a) A list of the inputs that are used for determining the Probability of Ignition (POI).
- b) A list of the inputs that are used for determining the wildfire consequence.
- c) The Probability of Ignition (POI) rating generated by the WRRM.
- d) The wildfire consequence outputs generated by the WRRM for the same weather scenario used in 5(c).

If applicable, provide inputs and outputs at the equipment level and pole/tower level.

**Response to Question 004:**

- a) The inputs to SCE's POI models include the following:

Feature	Description
LENGTH_SEG_CAL_TOTAL	Calculated Total Length of segment from the Substation, inclusive of current feature length
SCD_Seg	SCD of segment
Delta_SCD	Difference between SCD of segment and SCD threshold
Avg_Ckt_Pole_Age	Mean pole age in circuit
DOM_CUST	Number of domestic customers in circuit
TOTAL_NBR_CUST	Total Number of customers found by linking the transformer unit serial number to CSS meters
Size_Material	Conductor size and material
COM_CUST	Number of commercial customers in circuit
ICA_GEN_UDF	DERiM ICA Generation value
SCD_Ratio	Ratio of SCD of segment to SCD threshold
SECTION_FLAG	A flag to indicate if conductor has RCS/RAR protection or not
Log_WindForce	Log conversion of downforce
ICA_LOAD_UDF	DERiM ICA Load value
Switch_Count	Number of switch transactions
LAT_UDF	Segment Latitude
LONG_UDF	Segment Longitude
Structure_Count	Number of structures

Feature	Description
FUSE_FLAG	Indicator of having fuse protection or not
CONDUCTOR_SIZE_UDF	Conductor size
SumOfBLF_UDF	Total number of branch line fuse in circuit
max_of_sd_of_seg_downforce	Maximum value of standard deviation of segment downforce
DOWNSTREAM_CUST	Downstream Total Customer count found at the end of the conductor, exclusive of current conductor customer count
mean_of_sd_of_seg_downforce	Mean value of standard deviation of segment downforce
DOWNSTREAM_KVA	Downstream Total KVA count found at the end of conductor, exclusive of the current conductor kva
max_of_mean_of_seg_downforce	Maximum value of average segment downforce
max_of_sum_of_seg_downforce	Maximum value of sum of segment downforce
range_of_sd_of_seg_downforce	Range of standard deviation of segment downforce
Conductor_LENGTH_UDF	Conductor length in consideration with phase count.
mean_of_mean_of_seg_downforce	Mean value of average segment downforce
range_of_sum_of_seg_downforce	Range of sum of segment downforce
sd_of_sd_of_seg_downforce	Standard deviation of sd of segment downforce
mean_of_sum_of_seg_downforce	Mean value of sum of segment downforce
range_of_mean_of_seg_downforce	Range of average segment downforce
min_of_sd_of_seg_downforce	Minimum value of standard deviation of segment downforce
IND_CUST	Number of industrial customers in circuit
sd_of_mean_of_seg_downforce	Standard deviation of average segment downforce
sd_of_sum_of_seg_downforce	Standard deviation of sum of segment downforce
Mean_Seg_Length_Cal	Mean conductor length from structure to structure
skew_of_mean_of_seg_downforce	Skewness of average segment downforce
skew_of_sum_of_seg_downforce	Skewness of sum of segment downforce
Mean_Seg_Length_Phases	Mean conductor length from structure to structure in consideration with phase count
min_of_mean_of_seg_downforce	Minimum value of average segment downforce
skew_of_sd_of_seg_downforce	Skewness of standard deviation of segment downforce
min_of_sum_of_seg_downforce	Minimum value of sum of segment downforce
Current_Flux_Density	Downstream current density
SCD_Thresholds	SCD value based on location of segment such as before or after a RCS/RAR protection
SumOfAR_UDF	Total number of Automatic Recloser in circuit
Conductor_Diameter_UDF	Diameter of conductor
CIRCUIT_KV_UDF	Maximum KVA rating
kurtosis_of_sum_of_seg_downforce	Kurtosis of sum of segment downforce
Humidity_Avg_Value	Average Humidity
Humidity_Max_Value	Max Humidity
Humidity_Min_Value	Min Humidity
Humidity_StdDev_Value	Standard deviation of Humidity
Hz_wnd_spd_Avg_Value	Average Wind Speed
Hz_wnd_spd_Max_Value	Max Wind Speed

Feature	Description
Hz_wnd_spd_Min_Value	Min Wind Speed
Hz_wnd_spd_StdDev_Value	Standard deviation of Wind Speed
Rain_Avg_Value	Average Rain
Rain_Max_Value	Max Rain
Rain_StdDev_Value	Standard deviation of Rain
Pk_wnd_spd_Avg_Value	Average Gust Speed
Pk_wnd_spd_Max_Value	Max Gust Speed
Pk_wnd_spd_Min_Value	Min Gust Speed
Pk_wnd_spd_StdDev_Value	Standard deviation of Gust Speed
Temp_Avg_Value	Average Temperature
Temp_Max_Value	Max Temperature
Temp_Min_Value	Min Temperature
Temp_StdDev_Value	Standard deviation of Temperature
Humidity_Sum_Above_Th_1	Sum of Humidity is above first threshold
Humidity_Sum_Above_Th_2	Sum of Humidity is above second threshold
Humidity_Sum_Above_Th_3	Sum of Humidity is above third threshold
Hz_wnd_spd_Sum_Above_Th_1	Sum of Wind Speed is above first threshold
Hz_wnd_spd_Sum_Above_Th_2	Sum of Wind Speed is above second threshold
Hz_wnd_spd_Sum_Above_Th_3	Sum of Wind Speed is above third threshold
Rain_Sum_Above_Th_1	Sum of Rain is above first threshold
Rain_Sum_Above_Th_2	Sum of Rain is above second threshold
Rain_Sum_Above_Th_3	Sum of Rain is above third threshold
Pk_wnd_spd_Sum_Above_Th_1	Sum of Gust Speed is above first threshold
Pk_wnd_spd_Sum_Above_Th_2	Sum of Gust Speed is above second threshold
Pk_wnd_spd_Sum_Above_Th_3	Sum of Gust Speed is above third threshold
Slr_rdt_n_Sum_Above_Th_1	Sum of solar radiation is above first threshold
Slr_rdt_n_Sum_Above_Th_2	Sum of solar radiation is above second threshold
Slr_rdt_n_Sum_Above_Th_3	Sum of solar radiation is above third threshold
Temp_Sum_Above_Th_1	Sum of temperature is above first threshold
Temp_Sum_Above_Th_2	Sum of temperature is above second threshold
Temp_Sum_Above_Th_3	Sum of temperature is above third threshold
Temp_Sum_Below_Th_1_L	Sum of temperature is below first threshold
Temp_Sum_Below_Th_2_L	Sum of temperature is below second threshold
Temp_Sum_Below_Th_3_L	Sum of temperature is below third threshold

- b) List of input to the consequence models include: Surface Fuels; Canopy Fuels; Weather Data; Live/Dead Fuel Moisture Data; Building/Structure Data; Population Data; SCE Assets.
- c) The POI for this structure is 0.0002193877.
- d) The wildfire consequence for this structure is 47629.3406199072 (Edison understands "5(c)" to refer to "4(c)")