

**PACIFIC GAS AND ELECTRIC COMPANY**  
**Wildfire Mitigation Plans**  
**Rulemaking 18-10-007**  
**Data Response**

PG&E Data Request No.:	CalAdvocates_035-Q06		
PG&E File Name:	WildfireMitigationPlans_DR_CalAdvocates_035-Q06		
Request Date:	January 19, 2021	Requester DR No.:	CalAdvocates-PGE-2021WMP-01
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PG&E Witness:		Requester:	Matthew Yunge, PE

**QUESTION 06**

For each WMP initiative listed below, please state how the Wildfire Risk Levels provided in the Excel spreadsheet for Questions 4 and 5 influenced where you performed work in 2020 and how work was sequenced.

**ANSWER 06**

a) Enhanced Vegetation Management (EVM)

To determine which electric lines were selected for EVM work in High Fire Threat District (HFTD) areas, PG&E used risk rankings as one input among others, including weather, permitting requirements, local workforce inputs, community concerns, coordination of work with routine vegetation management work, and coordination with other wildfire mitigation work.

For its 2020 workplan, PG&E utilized a risk model developed by the Electric Operations Asset Management team known as the Risk Value Overlay (or “Circuit Based Planning”) model. In the table below, PG&E provides the risk prioritization based on the Risk Value Overlay model, miles in the 2020 work plan, and miles completed.

Risk Tranche by Circuit against ~25,500 HFTD OH Distribution Miles							
Risk Priority	Circuits	OH Distribution Miles in HFTD	Miles in 2020 Work Plan	% of 2020 Planned Work in this Tranche	Miles Completed YTD (As of 1/11/2021)	% of 2020 Work Completed YTD in this Tranche	% of 2020 Work Completed / Planned
Top 5%	40	3,454	278	15%	274.6	15%	99%
5-10%	40	2,497	144	8%	134.5	7%	93%
10-20%	79	3,238	347	18%	338.0	18%	97%
20-50%	238	7,538	637	34%	635.4	34%	100%
>50%	398	6,035	485	26%	495.5	26%	102%
Total	795	22,762	1,891		1877.9		99%

As indicated above, EVM work is not solely sequenced based on the risk model. Instead, a risk informed plan is developed encompassing more than the targeted 1,800-miles in the HFTD areas and then that plan is executed upon (including sequencing) based on operational considerations, including but not limited to: weather, permitting requirements, local workforce inputs, community concerns, coordination of work with routine vegetation management work, and coordination with other wildfire mitigation work.

b) Covered Conductor Installation

Targeted Covered Conductor Installation is completed as part of the System Hardening Program. Projects that were a carry-over from 2019, already estimated, or construction ready were prioritized (and sequenced) ahead of work that had only been scoped or not yet started. The Wildfire Risk Levels were used to inform prioritization of projects at similar execution stages against each other.

c) Pole Replacement

Wildfire Risk Levels were not factors in determining what pole replacement work was performed or how it was sequenced. Pole replacements are driven primarily by asset condition, namely maintenance tags found through enhanced inspections and intrusive inspections (Pole Test and Treat). These tags are then prioritized by potential for ignition, wildfire spread, and time dependency, as further described in Section 7.3.3.12.3 of the 2021 WMP. Pole replacement sequencing in 2020 was determined based on each pole's priority bucket, estimating & material readiness, and crew & clearance availability.

d) Undergrounding

PG&E does not have a specific undergrounding program for wildfire risk.<sup>1</sup> Targeted undergrounding is completed as part of the System Hardening Program. Wildfire risk levels were used for identifying circuit segments to be hardened and consideration of if a circuit segment should be undergrounded is identified as part of our field scoping process. Typically areas of high ingress/egress risk or express overhead lines (sections with few service drops) within the circuit segment were identified for undergrounding where adequate space was available for the required underground infrastructure.

e) Distribution Grid Sectionalization

The Wildfire Risk Level was not a factor used by PG&E to identify where distribution grid sectionalization work was performed in 2020 or how the work was sequenced.

PG&E had previously analyzed all distribution circuits (regardless of the Wildfire Risk Level) which originate in Non-HFTD areas and extend into the HFTD (Tier 2

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<sup>1</sup> PG&E has a separate undergrounding program under Rule 20A that is not based on wildfire risk.

and Tier 3) areas. Distribution grid sectionalizing device locations were selected close to the boundary of Non-HFTD and HFTD areas, accounting for all branches of each circuit, to ensure that all Tier 2 and Tier 3 HFTD areas downstream of the grid device would be deenergized when the device is operated during a PSPS event. Locations were selected to keep the greatest number of customers energized as possible in the Non-HFTD areas, while allowing us to implement a PSPS event in Tier-2 and Tier-3 HFTD areas when necessary for customer and community safety.

PG&E sequenced the distribution work in 2020 to support execution of the work by placing the highest priority on installations of “greenfield” devices, which are spots on the distribution circuit where there is no existing manual or automated device.

e) Transmission Grid Sectionalization

Wildfire Risk Levels were not factors in determining what transmission grid sectionalizing work was performed or how it was sequenced. Transmission line sectionalizing devices are driven primarily by potential customer impact and PSPS likelihood. The switches from 2020 were prioritized by 2019 PSPS performance and potential customer impact. Transmission line sectionalizing device sequencing in 2020 included several factors such as permitting, material availability, and clearance availability.

f) Detailed inspections of distribution assets

In 2020, the field execution plan for patrol and inspections was focused on prioritizing geographic areas or line segments with high concentrations of HFTD Tier 2 or Tier 3 assets. The specific risk ranking of assets as shown in the Wildfire Risk Levels spreadsheet was not directly used by patrol and inspection execution team leaders in 2020, only the designation of HFTD Tier attribute. As a result, line segments and geographic areas with high concentrations of HFTD assets were generally placed earlier in the execution plan. However, field conditions including physical access, environmental restrictions, permitting constraints and customer refusals did cause the actual field execution sequence to shift.

g) Detailed inspections of transmission assets

In 2020, the field execution plan for patrol and inspections was focused on prioritizing geographic areas or line segments with high concentrations of HFTD Tier 2 or Tier 3 assets. The specific risk ranking of assets as shown in the Wildfire Risk Levels spreadsheet was not directly used by patrol and inspection execution team leaders in 2020, only the designation of HFTD Tier attribute. As a result, line segments and geographic areas with high concentrations of HFTD assets were generally placed earlier in the execution plan. However, field conditions including physical access, environmental restrictions, permitting constraints and customer refusals did cause the actual field execution sequence to shift.

h) Aerial inspections of transmission assets

In 2020, the field execution plan for patrol and inspections was focused on prioritizing geographic areas or line segments with high concentrations of HFTD Tier 2 or Tier 3 assets. The specific risk ranking of assets as shown in the Wildfire Risk Levels spreadsheet was not directly used by patrol and inspection execution team leaders in 2020, only the designation of HFTD Tier attribute. As a result, line segments and geographic areas with high concentrations of HFTD assets were generally placed earlier in the execution plan. However, field conditions including physical access, environmental restrictions, permitting constraints and customer refusals did cause the actual field execution sequence to shift.

i) Aerial inspections of distribution assets

In 2020, the field execution plan for patrol and inspections was focused on prioritizing geographic areas or line segments with high concentrations of HFTD Tier 2 or Tier 3 assets. The specific risk ranking of assets as shown in the Wildfire Risk Levels spreadsheet was not directly used by patrol and inspection execution team leaders in 2020, only the designation of HFTD Tier attribute. As a result, line segments and geographic areas with high concentrations of HFTD assets were generally placed earlier in the execution plan. However, field conditions including physical access, environmental restrictions, permitting constraints and customer refusals did cause the actual field execution sequence to shift.

j) LiDAR inspections of distribution asset

In relation to strike trees mentioned in Section 5.3.4.7 of the 2020 WMP, our LiDAR Derived “Strike Tree” inventory was input into circuits based on the current progress of the circuit within the EVM program and not solely based on the Wildfire Risk Levels of the circuit. The Wildfire Risk Levels were utilized to prioritize and schedule the circuits for work with our operations teams, and as the LiDAR “Strike Tree” inventories were input into circuits to better inform our Pre-Inspectors as to which trees may need to be assessed, the Wildfire Risk Levels was not the determining factor in which circuits received LiDAR inspections and which did not.

k) LiDAR inspections of transmission assets

Wildfire Risk Levels did not influence LiDAR inspections at a granular level, however the overall risk of HFTD areas did influence LiDAR inspections. Specifically, in 2018 and 2019 PG&E conducted LiDAR inspections to determine vegetation conditions on 100% of its overhead electric transmission system. In 2020, PG&E repeated this practice. However, PG&E also completed a second, additional LiDAR “mid-cycle” patrol for 100% of the HFTD areas during the height of the fire season: mid-June to mid-August 2020.