

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

PG&E Data Request No.:	CalAdvocates_035-Q10		
PG&E File Name:	WildfireMitigationPlans_DR_CalAdvocates_035-Q10		
Request Date:	January 19, 2021	Requester DR No.:	CalAdvocates-PGE-2021WMP-01
Date Sent:	February 9, 2021	Requesting Party:	Public Advocates Office
PG&E Witness:		Requester:	Matthew Yunge, PE

**QUESTION 10**

For each program identified in WMP section 5.3, Plan Program Targets:

- a) Provide the annual program targets from the year 2019 onward as identified in the 2019 WMP filing.
- b) Provide the annual program targets from the year 2020 onward as identified in the 2020 WMP filing.
- c) List the actual work completed for 2019.
- d) List the actual work completed for 2020.

**ANSWER 10**

- a) Please see column H in the table below for the 2019 Targets for the initiatives referenced in Table 5.3-1 of PG&E's 2021 WMP
- b) Please see columns I, D, and E in the table below for the respective 2020, 2021, and 2022 Targets for the initiatives referenced in Table 5.3-1 of PG&E's 2021 WMP
- c) Please see column B in the table below for the 2019 actual work completed for the initiatives referenced in Table 5.3-1 of PG&E's 2021 WMP
- d) Please see column C in the table below for the 2020 actual work completed for the initiatives referenced in Table 5.3-1 of PG&E's 2021 WMP

\*Note the Unit definitions are provided in column F and the underlying assumptions are in column G

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Program Target	2019 Performance	2020 Performance	Projected Target by end of 2021	Projected Target by end of 2022 <sup>(33)</sup>	Units	Underlying Assumptions	2019 Target	2020 Target
B.04 - 7.3.2.1.3 - Enhancements to Weather Station Project (Installations and Optimization)	426	404	300	TBD	# of weather stations installed	Between 2018 and the end of 2021, we will have installed over 1300 weather stations, meeting the original scope of the program to have approximately one weather station for every 20 distribution circuit miles in HFTD areas. Beyond 2021, in collaboration with external partners, we will assess the need to install additional weather stations as well as optimize the locations of existing stations.	400	400
B.16 - 7.3.2.1.4 - HD Cameras	75	216	135	132	# of HD Cameras Installed	By the end of 2022, we will have met our original goal of having 600 cameras and 90% visual coverage of HFTD areas. Cameras are considered operational when they successfully begin providing images to Alertwildfire.org (available to the public as well).	71	200
C.02 - 7.3.3.11.1C - Generation for PSPS Mitigation (Temporary Distribution Microgrids)	1 [+3 temporary configurations]	3 (2 additional) [+3 temporary configurations]	8 (5 additional)	15 (7 additional)	Cumulative # of Distribution Temporary Microgrids (PIH) operationally ready to receive temporary generation	Primary unit of measure reflects cumulative PIHs available and ready to operate for PSPS events.	1 [3 temporary configurations]	1
C.03 - 7.3.3.11.1B - Generation for PSPS Mitigation (Substation Distribution Microgrids)	0	60	8	8	# of substations operationally ready as a temporary microgrid	The substation microgrid program began in 2020. In 2020, there were two additional substation solutions at Calistoga and Placerville that are categorized under the Temporary Distribution Microgrids immediately above (Section 7.3.3.11.1C) that also utilized substation temp gen equipment, bringing the total count of substations equipped to accept generation to 62.	0	60

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
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C.04 - 7.3.3.11.3 - Emergency Back-up Generation – PG&E Service Centers & Materials Distribution Centers	0	0	23	72	# of locations equipped to receive permanent or temporary generation (Operational)	New initiative started in 2021, each Center becomes ready to receive permanent or temporary generation	0	0
C.05 - 7.3.3.17.5 - Remote Grid	0	0	1	20	# of Remote Grid sites operational	This was a new Technology initiative that started in 2020	0	4 to 8
C.06 - 7.3.3.8.1 - Distribution Sectionalizing (automated devices)	228	603	250	100	# of new installations of Automated Sectionalizing Devices (SCADA Commissioned)	Devices located on lines traversing into Tier 2 and Tier 3 HFTD boundaries	No specific target set in 2019 WSP	592
C.07 - 7.3.3.8.2 - SCADA Transmission Switching (switches)	0 (For PSPS mitigation)	54	29	65	# of switches installed to mitigate PSPS impacts	Switches were expedited with locations determined to be in high priority for PSPS events	0	39
C.08 - 7.3.3.9.1 - Distribution line legacy 4C controllers	0	20	~84 / 100% of remaining in Tier 2 and 3 HFTD	0	# of distribution line Legacy 4C Controllers replaced with SCADA enabled reclosers in Tier 2 and Tier 3 HFTD	Approximately 50 4C reclosers were replaced by other programs (COE, System Hardening) leaving 84 to complete 100% of the remaining	0	20
C.09 - 7.3.3.9.2 - Fuse Savers (Single phase reclosers)	0	0	70	70	# of single phase reclosers sets installed (SCADA Commissioned)	PG&E piloted the devices in 2018-2019 to determine if they work as designed. In 2020, the devices were used for the Distribution Line Sectionalizing (123 locations). For 2021 and 2022, the plan is to use the Fuse Saver device to mitigate risk from back-feed conditions on long tap lines (70 locations annually). The Fuse Saver and similar devices have	0	0

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						multiple applications and can be used to open all phases whether it's for PSPS sectionalizing (under MAT 49H) or for mitigating back-feed conditions (under MAT 49T).		
C.11 - 7.3.3.7 - Expulsion Fuse Replacement (non-exempt equipment)	708	643	1,200	1,200	# of Expulsion Non-Exempt Fuses replaced in Tier 2 and Tier 3 HFTD		625	625
C.12 - 7.3.3.17.3 - System Protection (surge arrester)	4,602	10,263	at least 15,000 of the remaining 21,400	TBD (may include remainder of Tier 3 and 2 HFTDs + non-HFTDs)	# of Non-Exempt Surge Arresters replaced (in Tier 2 and Tier 3 HFTD through 2021)	In 2017, the Program started replacement of the existing surge arresters with new arresters identified as exempt by CAL FIRE  2022 Target will be dependent on actual performance in 2021. Any Tier 3 and Tier 2 HFTD units not completed in 2021 are planned to be completed in 2022, plus potential expansion into non-HFTD replacements	4,425	8,850
C.13 - 7.3.3.17.1 - System Hardening (line miles)	171	342	180	470	# of line miles hardened in Tier 2, Tier 3 HFTD or fire Rebuild areas		150	221
C.14 - 7.3.3.17.6 - System Hardening (Butte County Rebuild)	0	30	23	23	# of miles hardened via undergrounding within Butte county	During the first year 2019 Actuals were incorporated in the System Hardening Program immediately above	Included in System Hardening miles (no set Target)	20 (HFTD Only)
C.15 - 7.3.3.17.2 - System Hardening - Transmission Conductor	40	103	92	111	# of transmission line conductor miles hardened	Some of the mileage may not be in HFTD as some transmission lines traverse both HFTD and non-HFTD areas. Only electric transmission capital project greater than \$1M are in	40	103

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Program Target	2019 Performance	2020 Performance	Projected Target by end of 2021	Projected Target by end of 2022 <sup>(33)</sup>	Units	Underlying Assumptions	2019 Target	2020 Target
						scope. Smaller span reconductoring via maintenance tags is not counted in this overall mileage. 2021 target is adjusted from the original STAR filing to account for potential execution risks.		
D.01 - 7.3.4.1 - Distribution HFTD Inspections (poles)	694,250	100% of Tier 3 & Zone 1 and 33% of Tier 2 (339,728)	100% of Tier 3 & Zone 1 and 33% of Tier 2, plus high consequence Tier 2 structures (~402K)	100% of Tier 3 & Zone 1 and 33% of Tier 2, plus high consequence Tier 2 structures (~395K)	# of overhead distribution structures Inspected in HFTD and Buffer Zone "Zone 1"	For WSIP in 2019, we counted the number of inspections, while 2020 and beyond measure the number of poles inspected	694,250	339,728
D.02 - 7.3.4.15 - Substation HFTD Inspections (substations)	222	100% of Tier 3 & Zone 1 and 33% of Tier 2 (99)	100% of Tier 3 & Zone 1 and 33% of Tier 2 (100)	100% of Tier 3 & Zone 1 and 33% of Tier 2 (100)	# of substations inspected in Tier 3 and Tier 2 HFTD and adjacent Tier 3 and Tier 2 HFTD.	For WSIP in 2019, we counted the number of inspections, while 2020 and beyond measure the number of substations inspected	222	99
D.03 - 7.3.4.2 - Transmission HFTD Inspections (structures)	49,715	100% of Tier 3 & Zone 1 and 33% of Tier 2 (26,282)	100% of Tier 3 & Zone 1 and 33% of Tier 2 (24,092)	100% of Tier 3 & Zone 1 and 33% of Tier 2 (24,092)	# of structures inspected Tier 2 and Tier 3 HFTD	For WSIP in 2019, we counted the number of inspections, while 2020 and beyond measure the number of structures inspected	49,715	26,282
D.04 - 7.3.4.5 - Infrared Inspections of Transmission Electric Lines and Equipment	~4,354 HFTD Tier 3, 2 and Zone 1  [~9,905 system wide]	~2,676 HFTD Tier 3, 2 and Zone 1  [~5,250 system wide]	~2,844 HFTD Tier 3, 2 and Zone 1  [~7,761 system wide]	~2,844 HFTD Tier 3, 2 and Zone 1  [~7,761 system wide]	# of circuit miles infrared inspected in HFTD  [total systemwide # of circuit miles infrared inspected]	Primary unit of measure for the 2021 commitment is HFTD miles (Tier 3, 2 and Zone 1)  [Secondary unit of measure that ties to the financial tables includes all mileage]  Note: Infrared inspections are dependent on loads. If load does not materialize, infrared inspection cannot be	3,600 HFTD Tier 3, 2 and Zone 1	3,419 HFTD Tier 3, 2 and Zone 1  [2,548 system wide]

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Program Target	2019 Performance	2020 Performance	Projected Target by end of 2021	Projected Target by end of 2022 <sup>(33)</sup>	Units	Underlying Assumptions	2019 Target	2020 Target
						performed  For 2022, infrared effectiveness will be evaluated prior to continuing or changing cycle times set in 2021 scope.		
E.01 - 7.3.5.15 - EVM (line miles)	2,498	1,878	1,800	1,800	# Line miles completed and verified in HFTD		2,450	1,800
E.03 - 7.3.5.3 - VM Transmission Right of Way Expansion	198	207	200	125	# of miles of Transmission ROW expanded in HFTD		197	207