

**PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans Discovery 2023
Data Response**

PG&E Data Request No.:	OEIS_001-Q014		
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Date Sent:	April 10, 2023	Requesting Party:	Office of Energy Infrastructure Safety
DRU Index #:		Requester:	Colin Lang

SUBJECT: REGARDING PG&E'S ASSET MANAGEMENT UPGRADES

QUESTION 014

On page 433, PG&E states that "PG&E has significantly advanced our data management practices and the quality of our asset inventory (Asset Registry) database over the last two years by applying the International Organization for Standardization (ISO) 55001 standards."

- a) Do the upgrades to PG&E's asset inventory database include the location of each piece of equipment (what pole it is attached to) for the distribution system, and also includes the equipment's manufacturer, model ID, and when the equipment was placed into service?
 - i) If yes, how is this being done?
 - ii) If no, explain why this is not the case?
- b) PG&E relies on inspection results for making decisions on whether equipment should be replaced. Does PG&E ever replace equipment proactively based on the equipment reaching its lifecycle end, as determined by the manufacture or industry standards?
 - i) If yes, what equipment is being replaced for these reasons and why?
 - ii) If no, why doesn't PG&E monitor and replace equipment at the end of its lifecycle?
 - iii) Does PG&E have different decision-making policies when it comes to replacing equipment in the HFTDs as opposed to the rest of PG&E's territory?
 - iv) Of the distribution equipment that utilities are required to report on (capacitors, conductors, connectors, fuses, splices, arrestors, reclosers, and transformers) what percentage is still operating in the HFTDs because the equipment has passed inspection but is being used beyond its predicted lifecycle?
- c) Does PG&E track the performance of different types of equipment by manufacture and model information?
 - i) If yes, how does PG&E track this information and what decisions are made based on this data?
 - ii) If no, explain why is equipment performance not being tracked?

ANSWER 014

- a) Our asset inventory database (Asset Registry) does include attribute fields for location (lat/long and/or identification of support structure ID for attached equipment), manufacturer, model ID (as appropriate), and installation date. These are considered critical data elements (CDEs) and data governance and data quality metrics are being established to track the associated data quality.
- i. We collect required asset attributes as part of the As-Built process, according to process and engineering standards. This includes the attributes listed above. PG&E has also implemented an Asset Registry Data Quality (ARDQ) program to identify Critical Data Elements (CDEs) and related data quality for critical asset types. Currently this has been applied to 12 Transmission and Distribution overhead asset types on a risk prioritized basis. Attributes captured include installation date, location, manufacturer, and model ID (as appropriate). Data quality rules being measured include completeness. This provides identification of data gaps, including attributes such as installation date, which can then be targeted for remediation. A number of initiatives are underway to remediate known gaps, including the Transmission Asset Information Collection (AIC) program. The ARDQ program is being extended to include additional asset types on a risk prioritized basis. Refer to 2023 WMP sections 8.1.5 Asset Management and Inspection Enterprise System(s) and ACI PG&E-22-33 – Progress on Filling Asset Inventory Data Gaps for further details.
 - ii. Not applicable, please see the response to subpart (i) above.
- b) We do not replace equipment solely based on manufacturer or industry standard lifecycle ages. There are many other factors that can influence service life of equipment, such as environment, maintenance, life extension application, etc.
- i) Not applicable, please see the response to subpart (b) above.
 - ii) We replace equipment based on condition. Lifecycle is not solely determined by manufacturer or industry information, but also depends on other factors, as explained in subpart (b) above, which influence asset replacement need.
 - iii) We do not have different inspection criteria for assessing condition of assets in HFTD or non-HFTD areas. However, assets located within HFTDs are typically inspected at a higher frequency to increase understanding on wildfire ignition risk. Results from these inspections may prompt replacement work within HFTD locations. HFTD replacement work may also be prioritized before non-HFTD replacement work (not including emergency replacement) based on risk prioritization.
 - iv) We replace equipment based on condition. As such, PG&E does not have a predicted lifecycle for the general population of assets based on age and manufacturer information, as there are other factors that can influence service life.
- c) We track performance of equipment based on manufacturer and model information.

i) When an asset fails in service, a causal review may be conducted. The results of the causal review will dictate the appropriate direction and depth of the failure analysis and may trigger an extent of condition assessment to identify other assets of the same manufacturer or type, so the newly understood risk can appropriately be mitigated. Understanding asset failure modes and drivers helps to inform decisions about proactive upgrade, repair or replacement that may be necessary to avoid repeated asset failure.

ii) Not applicable, please see the response to subpart (i) above.