Pacific Gas and Electric Company

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May 1st, 2026 **BY ENERGY SAFETY E-FILING**

Shafi Mohammed
Chief Data Officer, Data Analytics Division
Office of Energy Infrastructure Safety
California Natural Resources Agency
715 P Street, 20th Floor
Sacramento, CA 95814

Re: **Q1 2026 Spatial, Q1 2026 Non-Spatial Data &Tabular Data Submissions**
***Docket: 2026 Data Submissions***

Dear Mr. Mohammed:

Pacific Gas and Electric Company (PG&E) appreciates the efforts of the Office of Energy Infrastructure Safety (Energy Safety) to refine its guidance and provide standardization through the Data Guidelines and Schema released on August 5, 2020, most recently updated on December 22, 2025 (V4.1).[1] Below we provide updates on our Q1 2026 Spatial and Non-Spatial Wildfire Mitigation Data Report (WMDR) submission, regulatory developments relating to our data submission, and general challenges and technical limitations related to the reporting.

## Q1 2026 Spatial Data Submission Updates

Throughout Q1 2026, we made major enhancements to the Spatial WMDR submission to ensure continued compliance with Energy Safety's Data Guidelines v4.1 and PG&E's 2026–2028 WMP (Revision 3), while also improving the usability and practical value of the final report for Energy Safety's compliance and field inspection staff. This quarter's submission enhancements include:

1. Adoption of Data Guidelines Version 4.1, with partial data provided for 100% of the ~70 net-new required fields;
2. Reported data for all 2026-2028 Wildfire Mitigation Plan (WMP) programs where progress towards their target has been made this quarter;
3. Incorporated Field Notes for GH-06 Shunt Splices as well as Optional Photos to proactively support Energy Safety's review and help preempt potential Notices of Non-Performance (NONs) and / or Notices of Data Inaccuracy (NODIs);
4. Added long text to 'Field Notes' and 'Description of Work' for all Vegetation Management and Inspection programs; and

[1] Subsequent updates to the Data Guidelines were released on February 4, 2021 (V2), September 17, 2021 (V2.1), January 14, 2022 (V2.2), December 15, 2022 (V3), March 17, 2023 (V3.1), January 30, 2024 (V3.2), March 3, 2025 (V4.0), and March 21, 2025 (V4.01).

5. Launched the Wildfire Intelligence Reporting Engine (WiRE) compliance reporting Data Hub.[2]

Throughout Q1, we continued to assess changes and associated impacts on established reporting logic and automations of our GIS data submissions – in the context of PG&E's latest Wildfire Mitigation Plan (*Revision 3 on December 30, 2025*) and with respect to Data Guidelines V4.1. Also, we continue to evaluate the change management needs to onboard additional subject matter experts (SMEs) responsible for both data Systems of Entry and Source Systems for 2026-2028 WMP programs.

One valuable improvement introduced with version 4.1 is the successful implementation of a new attribute that links the Grid Hardening and Initiative Audits feature classes. Specifically, the 'Work Order Facility' attribute in Grid Hardening (focused on program GM-03: Open Tag Reduction) and the 'Asset Type' attribute in Initiative Audits (pertaining to program GM-13D: Open Tag Reduction – Quality Control) are now synonymous and harmonized across datasets. This enhancement enables Energy Safety to conduct more effective desktop and field validations and may also help preempt Notices of Non-Performance or Data Inaccuracy.

In addition, PG&E successfully launched the Wildfire Intelligence Reporting Engine (WiRE) Data Hub, establishing the enterprise container and technical foundation for centralized Wildfire Mitigation Plan (WMP) reporting. Following a soft launch in January 2026, WiRE was fully launched in April 2026 and will support incremental onboarding of program teams throughout the 2026–2028 WMP cycle. This approach will enable consistent, accurate, and internally aligned regulatory reporting by providing a single platform for program data integration and automated attainment reporting.

**Q1 2026 Regulatory Developments Relating to Spatial Data Submission**

PG&E continues to emphasize the collection & curation of the optional Field Notes attribute for WMP initiatives to support field inspection crews on their inspections & audits. These changes support iterative transparency into our WMP practices and demonstrate our commitment to improving usability and transparency of WMDR data to support our shared goals of a safe and reliable grid. Though an investment to ultimately adopt the latest standards, we appreciate Energy Safety's thoughtfulness in changes to support centralization of additional data submissions through the WMDR standards while also eliminating data requirements such as the Planned and In Progress attributes for records of work that are subject to change.

Finally, we encourage Energy Safety to continue hosting quarterly check-ins on the Data Guidelines throughout 2026. As further explained below, we also recommend Energy Division host additional technical workshops to discuss the challenges of delivering revised datasets in the most efficient and cost-effective manner so that electrical corporations can best adapt and focus on priority data needs.

[2]Wildfire Intelligence Reporting Engine (WiRE) is a centralized data hub and reporting interface that standardizes, validates, and supports Wildfire Mitigation Plan (WMP data) used for regulatory reporting.

**General Challenges and Technical Limitations Relating to Spatial Data Submission**

Below, we reiterate the general challenges and technical limitations as raised in previous letters to Energy Safety and comments on draft Data Guidelines.

Closing reporting gaps will largely require more involved operational and technological changes and a significant investment in resources and time to collect, curate, and organize the spatial Wildfire Mitigation Data Report submissions on a recurring basis. This would require several large-scale, multi-year projects with significant resourcing and may come at increased cost to customers.[3] This would also require reprioritizing resources away from other important wildfire mitigation-related work. Additionally, the evolving nature of the Data Guidelines creates complexities around prioritization of efforts to address reporting gaps, especially given that a future version change may modify or remove certain requirements.

To this end, regular collaboration with Energy Safety is needed to align on expectations, the prioritization of omitted data, technical feasibility issues, and shape modifications to the schema. We recommend that Energy Safety work, in collaboration with electrical corporations, towards closing the remaining reporting gaps that utilizes a phased approach and based on value of the data to Energy Safety's objectives and the electric utilities' business operations.

We remain concerned that there is insufficient time to produce spatial quarterly data at the scale required by the Data Guidelines.[4] Additionally, some of the inputs in the submission report reflect preliminary estimates and may not reflect final results. For example, Risk Events are often still under investigation and subject to changing data as more information is reviewed.

Our existing data and system architecture were developed independently over decades to address specific operational uses. As a result, there are significant challenges to accessing and aligning data to meet Energy Safety's Data Guidelines. The data requested often exist across multiple systems or platforms—in such case, a significant of portion time and resources are spent on manually extracting and reformatting the datasets to align with Energy Safety's spatial WMDR schemas. Moreover, it is often the case that those responsible for curating the data are simultaneously involved in core operations work, including emergency response and Public Safety Power Shutoff (PSPS) readiness.

Though our alignment of the Spatial and Tabular Wildfire Mitigation Data Reports have progressed significantly, there are technical limitations to fully align data in certain circumstances. For example, data included in the spatial submission must meet specific technical criteria for inclusion, including the ability to transform data into Energy Safety's schema and represent geospatially. Tabular reports such as the WMDR are not subject to these requirements, which can result in differences across reports. In addition, each report contains: (i) differentials

[3] As an example, in the Other Power Line Connection Location feature class, we do not collect some of the information being requested regarding the other line information (e.g., OtherConductorMaterial) for private line owners. We do not keep record of customer owned facilities and views private or customer line owners as separately accountable to compliance with electric line regulations. Collecting this information would require considerable support and coordination with private owners.

[4] Our submissions include between 12-16 million records, providing limited time to collect, curate, transform, perform antivirus scanning, and submit the data in a file-geodatabase (FGDB) format.

in technical and schematic requirements; (ii) differentials in timing of data readiness; and (iii) differentials in data types reported on. This is further described through our Comment on Draft GIS Data Standard V2.2.[5]

We understand Energy Safety is using data included in the spatial WMDR submission to inform efforts related to their Performance Assessment Division field inspections. While use limitations, assumptions, and definitions for data submitted are described via our metadata, additional complexities occur when combining distinct datasets for analyses or operations. These complexities can lead to misunderstandings and/or conflicting results when assessing data submitted against field inspection findings. In addition, timing differentials may exist between collection of initiative data and population of said data into the geospatial format/database (GIS) due to the processes needed to document data, verify work performance and update geospatial records. Until a project is completed and mapped, detailed information remains in the design systems and paper job packages.

Once data is mapped in our GIS systems, it can be formatted to meet the requirements of Energy Safety's File Geodatabase schema and included in our spatial WMDR submissions. Thus, a job may be visible in the field but will not be present in our submission until mapping processes are completed. Our spatial WMDR submissions represent the best available data that can feasibly be aligned with Energy Safety reporting requirements. We welcome additional working sessions with Energy Safety to better understand its intended use of data included in our submissions and provide feedback regarding various applications and/or potential limitations.

We continue to evaluate the resource impact and cost associated with meeting section 2.4 'Revisions to Previously Submitted data' requirement as written. Each dataset, when the need for resubmission becomes known, involves support across seven functional areas (Execution & Reporting leads, Program directors, PMO, GIS, Regulatory Relations and Legal representatives) with a collective estimated level of effort at 12.5 hours per dataset.

We understand the requirement to provide Energy Safety with accurate and valid records to promote safety and transparency. However, a quarterly cadence does not provide ample time for risk event investigations or WMP initiative programs to finalize data to ensure complete, accurate and verifiable records at quarter close. As such, we recommend Energy Safety to consider requiring records on a year-to-date or cumulative year-to-date quarterly reporting basis, which will provide Energy Safety with more accurate and valid records. This will ensure Energy Safety receives the most up to date information as it exists in our systems of record.

In addition, we are working to improve the reliability metric and outage reporting calculations. We have consistently utilized all Service Point IDs (active and inactive) for the reliability calculations and have recently identified underlying data flow issues between different systems. For calculation of our 2025 numbers and onward, the calculation methodology remains unchanged. We have a multi-year plan in place to improve its metric reporting.

Finally, we continue to express concerns regarding Energy Safety sharing the spatial WMDR with third parties. This is because each electrical corporation has different WMP Initiatives and as such, there is no single confidentiality designation that can unilaterally be applied to all utilities. For example, our WMP initiative programs have included: expulsion fuse

[5] *See* PG&E Comment on Draft GIS Data Reporting Standard Version 2.2 (Dec. 27, 2021).

replacements, SCADA commission sectionalizing device installation, motorized switch operator (MSO) replacements, fuse saver installation, and other critical equipment. The above equipment is either remotely operable, and/or responsible for real-time operation of the electric system and associated with operation and control of the critical bulk electric system (BES) facilities that are protected under the North American Electric Reliability Corporation's Critical Infrastructure Protection ("NERC CIP"). Accordingly, we request that Energy Safety inform third parties interested in receiving data to reach out directly to the electrical corporations.

**General Challenges and Technical Limitations Relating to Non-Spatial Data Submission (WMDR)**

Existing Data Issues and Limitations

We are not currently experiencing any data issues with providing the non-spatial data on a quarterly basis. However, we are working to automate our unit attainment reporting process with the implementation of the WiRE Data Hub platform.

**Conclusion**

We continue to improve our data quantity and quality on a quarterly basis to comply with the Data Guidelines. Additional enhancement opportunities to overall data quantity and quality will largely require more involved operational and technological changes, as well as a significant investment of resources and time to collect, curate and organize the submissions on a recurring basis. Given the estimated level of effort required to meet the Data Guidelines, regular collaboration with Energy Safety is needed to align expectations, prioritize data collection and inform on technical feasibility issues.

Should you have any questions or concerns about these updates to our data, please do not hesitate to reach out as we would be happy to discuss these matters in detail if it would be helpful.

Very truly yours,

*/s/ Jay Leyno*

Jay Leyno

## APPENDIX:

## HISTORICAL SUBMISSION UPDATES AND REGULATORY DEVELOPMENTS

**Q4 2025 Spatial Data Submission Updates**

- We focused on compliance alignment with the evolving WMP data landscape. Enhancements in our approach to the regulatory compliance landscape include:
    1. Facilitate working sessions to prepare for the adoption of Data Guidelines Version 4.1; quarterly submission adherence due for Q1 submission,
    2. Prepare data engineering automation efforts for the 2026-2028 Wildfire Mitigation Plan (WMP) reporting cycle's net new programs and re-factored carry-over programs,
    3. Participate in the definition of Customer Reliability Report Template (Rulemaking 24-05-023) for integration and alignment with WMDR, and
    4. Initiate front-end "soft launch" release of the Wildfire Intelligence Reporting Engine (WiRE) compliance reporting data hub.
- Assessment of changes and impacts on existing on GIS data submissions automations. Onboarding additional subject matter experts (SMEs) responsible for new and evolving programs as part of our 2026-2028 WMP.
- Cross functional teams workshops to review and identify impacts to existing data pipelines which includes the addition of 10 net new programs and ~70 data changes. Estimated of ~1,500 hours investment across SME groups, program leads, legal, regulatory relations, directors and additional stakeholders.
- Automation of our WMDR through new Wildfire Intelligence Reporting Engine (WiRE). WiRE platform aims to harmonize, standardize and centralize PG&Es WMP data within a single accessible internal repository, including additional controls for data accuracy and integrity. This system will serve as PG&E's authoritative record, ensuring consistent and internal alignment of our regulatory compliance reporting. Our soft-launch for three pilot projects: GM-03 (Distribution Tags), AI-04 (Detailed Transmission Inspections), and AI-07 (Aerial Scan Inspections). Additional program teams will be onboarded for the new 2026-2028 WMP cycle.

**Q4 2025 Regulatory Developments Relating to Spatial Data Submission**

- We have acted on Energy Safety's responses to the electrical utilities' November 26th, 2025 joint reply comments, regarding draft Data Guidelines version 4.1., demonstrated by the addition of UMATIDActivity, UMATIDAudit, and Field Notes for other initiatives to support field inspection crews on their field audits. These changes support and demonstrate our commitment to improving usability and transparency of WMDR data to support our shared goals of a safe and reliable grid. We appreciate Energy Safety's thoughtfulness in changes to support centralization of additional data submissions through the WMDR standards while also eliminating data requirements such as the Planned and In Progress attributes for records of work that are subject to change.
- We encourage Energy Safety to continue hosting quarterly check-ins on the Data Guidelines throughout 2026. We also recommend Energy Division host additional

technical workshops to discuss the challenges of delivering revised datasets in the most efficient and cost-effective manner so that electrical corporations can best adapt and focus on priority data needs.

**Q3 2025 Submission Updates**

- Inclusion of optional Field Notes and Description of Work for WMP sections: 8.1.2.1 Covered Conductor Installation – Distribution; 8.1.2.2 Undergrounding of Electric Lines and/or Equipment – Distribution; 8.1.2.5.1 Traditional Overhead Hardening – Transmission Conductor (Transmission Shunt Splice Installation, Transmission Overhead Hardening, Conductor Segment Replacement); 8.1.2.10.1 Downed Conductor Detection Devices; 8.1.2.10.5 Non-Exempt Expulsion Fuses (Replacement, Removal); 8.1.7.2 Open Work Orders – Distribution Tags; 8.3.3.1 Existing Systems, Technologies, and Procedures.
- Estimated Age data for Distribution Transformer Detail and Distribution Switchgear Feature Classes, improvements Estimated Age data for Support Structure.
- Addition in Initiative Audits of a non-schema attribute, ProgramID, for identification of the auditing program.

**Q3 2025 Regulatory Developments Relating to Spatial Data Submission**

- PG&E began providing optional Field Notes and Description of Work for a variety of WMP initiatives in compliance with updated requirements and to preempt additional inquiries and provide meaningful information to Energy Safety. Description of Work specifies work performed (i.e., Fuse Replacement or Removal) along with the Support Structure ID which may be used identify the location where work was performed. Additionally, Field Notes may provide details of specific actions and steps taken to support Energy Safety's evaluation of this commitment.
- PG&E also provided a reference guide with pictures and descriptions of various types of fuses and fuse-related hardware to identify the fuse-related field equipment. Program teams continue to identify and provide Field Notes and Descriptions of work in future submissions as well as supplemental information where appropriate.
- Based on Energy Safety's quarterly Technical Workshop with Joint IOUs on June 10, 2025, under the guidance of the Data Analytics Division the Initiative Audits Feature Class added a helper attribute for tracking of program targets. This effort standardizes the language of the Utility Mitigation Activity Tracking ID [UMATID] to align with all other Initiative feature classes and provides traceability to the initiative receiving the QC and/or QA audit.

**Q2 2025 Submission Updates**

- Development of *Crossarm Attached* and *Estimated Age* attribute data for transmission data in our Support Structure feature class in the Asset Point feature dataset.
- Inclusion of additional target data for WMP initiative GM-03 HFTD / HFRA Open Tag Reduction – Distribution Backlog. GM-03 now includes: Backlog Risk Reduction and Additional HFTD / HFRA Closures target data. Previously, only the backlog risk

reduction activity was included. PG&E also utilized the *Description of Work* attribute to distinguish between the program's two targets.[6]

- Automated Foundry delivery of WMP initiative GH-06 Tx Shunt Splice Installation resulting in a reduction of manual reporting effort and increase in reporting integrity.

**Q2 2025 Regulatory Developments Relating to Spatial Data Submission**

- In the Energy Safety hosted quarterly Technical Workshop on June 10, 2025, the electrical corporations discussed required resubmissions for revised data and general schema recommendations. PG&E continues to evaluate the resource impact and cost associated with meeting this compliance requirement. When resubmitting a dataset, multiple functional areas are involved and a level of effort of at least 12.5 hours per dataset. It was also raised that a quarterly cadence does not provide ample time for risk event investigations or finalizing complete and accurate WMP initiative programs data. PG&E recommended Energy Safety to consider a year-to-date or cumulative year-to-date quarterly reporting basis. This could provide Energy Safety with more accurate and valid records, ensuring more up to date information from PG&E's systems of record.
- PG&E advocated for an enhancement to the Initiative Audits Feature Class track program targets by standardizing the language of the *Utility Mitigation Activity Tracking ID* [UMATID] and the addition of a new attribute to identify which initiative was the subject of the QC and/or QA audit.
- PG&E continued to request an update to the GDB for fields in the PSPS Event and Risk Event Feature Datasets. The current data type and field limits for attributes such as *Actual Duration Minutes*, *Total Customer Minutes,* and *Total Customers* data provided. PG&E proposes that these fields be changed from short integer to long integer to support larger data values.

**Q1 2025 Submission Updates**

- PG&E adopted Version 4.0 of the Data Guidelines in the first quarter of 2025. This effort included conducting over 30 working sessions to review requirements, assess the levels of effort needed to adopt new requirements and implement more than 150 data changes. Adopting the changes applied to Version 4.0 required approximately 2,000 hours of work across over 50 resources.
- PG&E improved its Data Guidelines report with the introduction of net new data including integration of first-time reporting WMP initiative: System Hardening – Transmission Segment Conductor Replacement – WMP Section 8.1.1.2 / UMATID GH-11.
- PG&E improved its Data Guidelines report with the introduction of data quality enhancements including optimization of PSPS Event Log generation process to align with meteorological forecast outage (OPW 5.0) model.
- PG&E initiated development of a centralized, standardized data repository through the Wildfire Intelligence Reporting Engine (WiRE).

[6] Additional information containing GM-03 WMP target language submitted in supplementary metadata file.

**Q1 2025 Regulatory Developments Relating to Spatial Data Submission**

- On February 11, 2025, OEIS held a virtual public workshop soliciting feedback on the Revised Draft Data Guidelines which PG&E attended to contribute its comments. Energy Safety held a public meeting for the adoption of V4.0 on February 28, 2025.
- Energy Safety hosted a quarterly Technical Workshop on March 12, 2025, with the electrical corporations on resubmissions of revised data. PG&E continues to evaluate the large resource impact and costs associated with meeting this compliance requirement. PG&E recommended resubmission of records on a year-to-date basis which will provide Energy Safety with more accurate and valid records.

**Q4 2024 Submission Updates**

- PG&E provided Manufacturer & Model Number fields provided for the Connection Device feature class.
- PG&E provided Last Inspection Date field provided for the 3.6.2.6 Substation Feature Class in the Asset Point Feature Dataset – for Power Generation facilities
- PG&E provided From Structure ID and To Structure ID for the Connection Device feature class transmission splice data.
- PG&E aligned to a single dataset for the VM-18 Vegetation Management for Operations Mitigation (VMOM) program.
- PG&E provided multiple updates for process improvement on submissions for Tables 2 and 13 for tag data, Tables 2 and 5 for wires down data and Table 11 for financial data.

**Q4 2024 Regulatory Developments Relating to Spatial Data Submission**

- On November 19, 2024, Energy Safety released V4 draft Data Guidelines. PG&E provided reply Comments on December 23, 2024, emphasizing the resubmission challenges in Section 2.4 guidelines *Revisions to Previously Submitted Data*.
- Energy Safety did not host their usual quarterly data check-in during Q42024 with the electrical corporations. PG&E appreciates these quarterly check-ins as it allows for shared understanding around common reporting gaps, technical limitations, data availability, or other complexities to be understood. PG&E encourages Energy Safety to continue hosting quarterly check-ins on the Data Guidelines throughout 2025.

**Q3 2024 Submission Updates**

- PG&E provided Fire Weather Watch (FWW) Status and FWW Issue Date Time fields in the Ignition feature class.
- PG&E provided Exemption Status field in the Support Structure feature class.
- PG&E provided Distribution Clamps & Connectors data added to Connection Device feature class.
- PG&E provided improved descriptions for VM-02 Pole Clearing Description of Work field.
- PG&E provided data quality enhancements to Critical Facility Backup Power optional surveys data.
- PG&E continued improvements towards a single, joint record of evidence for each initiative program to support reporting and tracking consistent and stable target progress externally and internally against our WMP initiatives. PG&E transformed and curated data from different source systems to create a single dataset for our VM-02 Pole

Clearing and GM-03 HFTD/HFRA Open Tag Reduction –Distribution Backlog programs.

**Q3 2024 Regulatory Developments Relating to Spatial Data Submission**

- Energy Safety informed PG&E of third-party requests for Pole Location and ID data and for Vegetation Management Data. Energy Safety disagreed with PG&E's confidentiality designations and released the vegetation management data. Energy Safety also referenced that the data requested is available on PG&E's public facing website. However, the data available on PG&E's public facing webpage represents only our non-confidential version of the quarterly data submissions. If Energy Safety compares the versions of the data they released to what is posted on our public website, they will see confidential programs, fields, and records were removed from the version PG&E shares externally. When Energy Safety releases the entire dataset in their possession, they are also releasing confidential data which, once shared publicly, now helps fill in a knowledge gap for a bad actor. For example, PG&E has a Vegetation Management for Operational Mitigations (VMOM) program. PG&E removes the program identifier from our non-confidential version by taking out of the UtilityInitiativeTrackingID, WMPInitiativeActivity, and WMPSection fields. The identifier is removed as the program describes mitigation of trees on EPSS capable circuits. By sharing the data publicly, it is now known where PG&E's EPSS circuits are located. EPSS equipment is essential for safeguarding against wildfires and is protected under Govt. Code § 6254(k), (ab); 6 U.S.C. § 131; 6 CFR § 29.2 as critical energy infrastructure data

**Q2 2024 Submission Updates**

- PG&E provided the Nominal Voltage data field in the 3.6.2.2 Connection Device Feature Class for approximately 48,000 distribution splice records.
- PG&E enhanced the data connection between our OneVM and Foundry platforms by bringing in more OneVM data tables. As a result, more comprehensive vegetation data was brought in for WMP initiatives VM-03, VM-16, VM-17 reporting.
- PG&E further improved the methodology for Major Woody Stem (MWS) exemptions reported by providing the full population of MWS exemption as captured in OneVM. In previous submissions, there was a limitation in reporting that narrowed the dataset to those records with an inspection date.

**Q2 2024 Regulatory Developments**

- On May 31, 2024, Energy Safety issued a decision on PG&E's January 8, 2024 Change Order for the 2023-2025 Wildfire Mitigation Plan (WMP). All WMP initiative programs operated under the planned changes while the Change Order was under review by Energy Safety. In 2023, two PGEN generating facilities (the Deer Creek Powerhouse and Tule River Powerhouse) were divested and sold to other entities. These two sites, which PG&E no longer owns or operates, were originally in PG&E's portfolio for defensible space as part of initiative VM-07 for 2024. When these facilities were divested, PG&E submitted a Change Order to Energy Safety reducing the count to 59 defensible space inspections, subtracting the Deer Creek Powerhouse and Tule River Powerhouse from the total. Energy Safety denied the requested change causing the

number of required inspections to increase back to 61. PG&E no longer owns two of the facilities on the list; therefore, the Company has provided internal communications documenting the transactions accounting for the discrepancy in lieu of spatial reporting. For 2024, the VM-06 target was reduced from 55 to 54 due to the transfer of Belden PH which was absorbed into Power Generation. VM-07 will continue to perform Defensible Space Inspections on all assets at Belden PH.

**Q1 2024 Submission Updates**

- PG&E transitioned from Data Guidelines Version 3.1 to Version 3.2 during Q1 2024. PG&E adopted Version 3.2 of the Data Guidelines, by conducting working sessions to review requirements and assess the levels of effort needed, ultimately implementing more than 90 revisions.
- PG&E further improved the alignment between the data in the SQDR and the Quarterly Data Report. PG&E integrated the remaining net new WMP Initiative program into the Q1 2024 spatial submission where data was available. We transformed the data to fit the SQDR requirements and implemented quality control processes. This new dataset was:
    - Vegetation Management for Operational Mitigation – WMP Section 8.2.2.3 – Utility Initiative Tracking ID VM-18
- PG&E also incorporated five net new datasets in the Administrative Area feature class
    - Climate Zone
    - Summer Temperature Map
- A new source system data connection was established between Foundry and One VM, PG&E's new vegetation inspection and project management platform. The Major Woody Stem feature class was automated in Foundry for the spatial quarterly reporting.

**Q1 2024 Regulatory Developments**

- On April 22, 2024, Energy Safety hosted its first quarterly data check-in this year with California electrical corporations to discuss topics relating to the Data Guidelines submission formats. Topics included the transition to Version 3.2 and guidance was provided on QDR Table 11.
- PG&E received three Notices of Violation (NOV): NOV_PGE_CAC18_20231128_0934 on March 20, 2024, NOV_PGE_CAC18_20231129_0945 on March 21, 2024, and PGE_CAC18_20231212_1054 on April 11, 2024, regarding work performed as part of our pole clearing initiative. Energy Safety provided a latitude and longitude, project address and structure number (pole ID) where field verifications were conducted for work reported by PG&E from the Q2 2023 Spatial QDR; however, the unique ID of the job number (the 'VmpID') was not provided, and the geographical information shared by Energy Safety is not an exact match to any of the records PG&E provided in the Q2 2023 submission. As a result, PG&E is had to infer the record based on geographical proximity to the geographical information provided by Energy Safety. In a few violations, there were multiple Q2 2023 projects in the surrounding area, so PG&E's response was limited. PG&E requested Energy Safety provide the unique record ID from the data being referenced to best respond to the NOVs received.

**Q4 2023 Submission Updates**

- PG&E further improved the alignment between the data in the SQDR and the Quarterly Data Report. PG&E integrated the remaining net new WMP Initiative programs into the Q4 2023 spatial submission where data was available. We transformed the data to fit the SQDR requirements and implemented quality control processes. These new datasets were:
    - Second Patrol Transmission – WMP Section 8.2.2.1.2 / Utility Initiative Tracking ID VM-14;
    - Integrated Vegetation Management Transmission – WMP Section 8.2.2.1.3 / Utility Initiative Tracking ID VM-15;
    - Vegetation Management - Quality Control – WMP Section 8.2.5.2 / Utility Initiative Tracking ID VM-22; and
    - Asset Inspection - Quality Control Audits – WMP Section 8.1.6.2 / Utility Initiative Tracking ID GM-09.
- PG&E also incorporated five net new datasets in the Administrative Area feature class:
    - Surge Protection District;
    - Insulation District2;
    - Corrosion Area;
    - Raptor Concentration Zone; and
    - Snow Loading Area.

**Q4 2023 Regulatory Developments**

- On November 21, 2023, Energy Safety hosted its fourth quarterly data check-of the year with the electrical corporations. Topics included the utilities preferred file type/format for submitting the Wildfire Mitigation Data tables and, for the spatial data, the feasibility of submitting a file in the GDB file format or feature service.
- On December 15, 2023, Energy Safety released proposed changes to the Data Guidelines in Draft Data Guidelines v3.2.
- On January 16, 2024, PG&E submitted comments on these proposed draft guidelines. Our comments requested the revised Status Report and GDB templates, which were not provided with the v3.2 Draft Data Guidelines. These templates would allow PG&E and the other utilities to review the domain values, fields, character limits, data type, layout, and instructions to ensure changes are consistent with those outlined in Draft Data Guidelines. Without these templates, PG&E is unable to complete its assessment of the impacts of the Draft Data Guidelines.

**Q3 2023 Submission Updates**

- PG&E further improved the alignment of the data in the SQDR and the QDR. PG&E integrated three out of four net new WMP Initiative programs into the Q3 2023 spatial submission where progress was made and data was available for reporting [7]. This includes:

[7] There were eight new target initiatives introduced in our second WMP on August 7, 2023. Of these eight, four initiatives were not relevant for the Q3 2023 SQDR as no work was performed in Q2 2023. On September 27, 2023, PG&E submitted our third revision of our 2023-2025 WMP. Net new initiatives introduced in this latest revision can be expected for inclusion in our Q4 2023 SQDR submission.

- Routine Transmission NERC and Non-NERC – WMP Section 8.2.2.1.1 / Utility Initiative Tracking ID VM-13;
- Distribution Routine Patrol – WMP Section 8.2.2.2.1 / Utility Initiative Tracking ID VM-16; and
- Distribution Second Patrol – WMP Section 8.2.2.2.2 / Utility Initiative Tracking ID VM-17.

- PG&E also incorporated net new data outside of WMP initiatives, including:
  - Last Inspection Date and Installation Date fields in the Substation feature class.[8]
- PG&E utilized final data from the SQDR Risk Event feature class to populate sections of Table 2's QDR to further progress alignment across our spatial and tabular WMP data reports.

**Q3 2023 Regulatory Developments**

- On August 15, 2023, Energy Safety hosted its third quarterly data check-in this year to allow electrical corporations the opportunity to seek clarity on field definitions for the purpose of potentially including more data and expanded definitions in future submissions.

**Q2 2023 Submission Updates**

- PG&E incorporated 4 new WMP initiative programs. New programs included:
  - System Hardening - Transmission Shunt Splices – WMP Section 8.1.2.5.1 / Utility Initiative Tracking ID GH-06;
  - Fall-in Mitigation (Tree Removal) – WMP Section 8.2.3.4 / Utility Initiative Tracking ID VM-04;
  - Line Sensor Installations – WMP Section 8.3.3.1 / Utility Initiative Tracking ID SA-02; and
  - Engagement with Access and Functional Needs Populations (Portable Batteries) – WMP Section 8.5.3 / Utility Initiative Tracking ID PS-06.
- PG&E also incorporated net new data outside of WMP initiatives, including:
  - Other Power Line Connection Location feature class with data representing transmission line interties to other corporations;
  - Greased and Operating Voltage fields in the Transmission Line feature class;
  - Construction Grade field in the Support Structure feature class; and
  - Population Impact field in the Critical Facilities feature class.
- Enhanced Critical Facility feature class with additional records for the Backup Power, Backup Type, and Backup Capacity fields.
- Leveraged Palantir Foundry to produce Tables 5 and 6 of Energy Safety's QDR report from data from the final SQDR Risk Event feature classes for better data consistency between the tabular and spatial reports where data overlap exists.
- Automated three additional feature classes in Foundry for the SQDR in support of the Q2 2023 submission: Switchgear, Red Flag Warning Day, and High Wind Warning Day.

[8] Please see the Q3 2023 Status Report deliverable's availability explanations for additional information relevant to the inclusion of these fields.

- Made available for download a non-confidential version of the SQDR from our WMP webpage.[9]

**Q2 2023 Regulatory Developments**

- Energy Safety hosted its second quarterly data check-in this year with the electrical corporations to discuss confidentiality and Red Flag Warning Day data. This check-in allowed electrical corporations the opportunity to present the importance of protecting confidential data and provide examples of how data, which would seem non-confidential, can become confidential when displayed spatially.

**Q1 2023 Submission Updates**

- Continued to progress our adoption of Version 3.1 of the Data Guidelines. This included conducting over 30 working sessions to review requirements, assessing the levels of effort needed to adopt new requirements, and implementing more than 700 data changes. Adopting changes applied to Version 3.1 required approximately 7,200 hours across over 50 resources.
- Provided partial data for more than 95% of all new required fields in our submission.
- Drove efforts to ensure that all WMP initiatives, with relevant completed jobs to report against in Q1 2023, were included in the submission.
- PG&E also incorporated, for the first time, the 'EstimatedAge' field into the Support Structure Asset Point feature class. This was done by leveraging the pole installation year estimation component of the support structure equipment failure model which was created for internal purposes to improve wildfire risk and public safety risk modeling.

**Q1 2023 Regulatory Developments**

- Data Guidelines V3.1 released on March 17, 2023.
- Energy Safety hosted its first quarterly data check-in for 2023 with the electrical corporations to discuss the newly adopted Version 3.1 of the Data Guidelines. PG&E also shared that our wildfire risk model for 2023 was still in progress with a target internal draft date of April 30, 2023, so the newly added 'Ignition Risk', 'PSPS Risk', and 'Overall Utility Risk' schema fields would be using last year's model for the Q1 2023 submission. Similarly, PG&E's 2022 and 2023 models were not designed calculate risks as described in Energy Safety's new version 3.1 Data Guidelines.

**Q4 2022 Submission Updates**

- Conducted over 30 working sessions regarding the new V.3 Data Guideline requirements to assess the level of effort needed to implement them. Several cross-functional teams were involved in these working sessions to collaborate, review, and identify impacts to existing data pipelines and the feasibility of incorporating new fields or modifying existing ones, including: GIS analytics, information technology (IT), regulatory, legal, and various subject matter experts for the assets, Public Safety Power

[9] *See* (https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan.page#:~:text=The%202023-2025%20WMP%20addresses%20PG%26E%E2%80%99s%20wildfire%20safety%20programs,and%20containing%20the%20customer%20impact%20of%20EPSS%2FPSPS%20events).

Shutoff (PSPS) /Risk events, and initiatives depending on the feature class being assessed.
- PG&E incorporated the AiLogID field into the 3.5.4.2 Grid Hardening Log initiative dataset for the SCADA Recloser Installation program.
- Continued pursuing means to align the GIS Data Standard (SQDR) and the Quarterly Initiative Update (QIU) by creating a joint reporting tracker prototype with the goal of ensuring that the same initiative program leads provide the same progress completion unit counts for both quarterly reports. These data governance efforts will help support consistency in reporting.

**Q4 2022 Regulatory Developments**
- Energy Safety released the draft GIS Data Standard V3 on October 14, 2022. Public comments regarding the draft guidelines were submitted on November 17, 2022, and the final version was adopted December 15, 2022. Version 3 has necessitated more than 700 data changes. Based on previous version implementations, we estimate that implementing Version 3 will require approximately 1,500 hours across over 50 resources.[10] Implementing these requirements will involve collecting and curating data, updating transformation logic, creating lookup tables and relationships between schemas, and more.
- On December 20, 2022, Energy Safety hosted its fourth quarterly data check-in this year with the electrical corporations to discuss the newly adopted Version 3. This meeting allowed electrical corporations the opportunity to raise any questions, suggestions, or general comments. PG&E requested that future utility and Energy Safety check-ins focus on common reporting gaps found in each feature dataset, so that electrical corporations' technical limitations, data availability, or other complexities can be understood. This collaboration with Energy Safety is needed to align on expectations, prioritization of data, technical feasibility issues, shape modifications to schemas, and will assist in more consistent data applications across utility submissions.

**Q3 2022 Submission Updates**
- PG&E incorporated 8 new WMP initiative programs, enhanced quality, and expanded use limitations and definitions in our metadata for our spatial quarterly data reporting.
    - New programs included:
        - Early Fault Detection (EFD) Technology – WMP Section 7.3.2.2.3;
        - Generation for PSPS Mitigation – Temporary Distribution Microgrids – WMP Section 7.3.3.11.1 C;
        - Undergrounding of Electric Lines and / or Equipment (*"10K" Initiative*) – WMP Section 7.3.3.16;
        - HFTD/HFRA Open Tag Reduction – Distribution – WMP Section 7.3.4.17;
        - HFTD/HFRA Open Tag Reduction – Transmission – WMP Section 7.3.4.17;

[10] This estimate is based off of the historical time needed to adopt the previous Data Standard version requirements.

        - Updates to Grid Topology to Minimize Risk of Ignition in HFTDs – Remote Grid – WMP Section 7.3.3.17.5;
        - Infrared Inspections of Distribution Electric Lines & Equipment – WMP Section 7.3.4.4; and
        - Pole Clearing in State Responsibility Areas – WMP Section 7.3.5.2.
- Incorporated, for the first time, grid hardening photos of completed projects for select initiatives: SCADA Recloser Equipment Installation and Fuse Saver Installation through manually assessing an array of post-installation photos for individual projects and selecting the best available photo.
- Proactively enhanced data quality by bringing in over 87% more CircuitID values from what was previously omitted in the 3.1.2 Connection Device feature class through technical working sessions with subject matter experts and GIS analysts create a lookup table.
- Gathered and updated metadata information for all 8 newly included WMP initiatives and for the 3.5.2 Vegetation Management Projects.

**Q3 2022 Regulatory Developments**

- On August 16, 2022, Energy Safety hosted their third quarterly data check-in this year with electrical corporations to align on key issues, document feedback, and provide guidance, where applicable on compliance reporting. This discussion focused on how best to show one-to-many relationships between structures, circuits, substations, and other assets. The working session concluded that an asset relate table would provide benefit in depicting complex one-to-many asset relationships.

**Q2 2022 Submission Updates**

- PG&E incorporated 9 new WMP initiative programs, enhanced quality, and expanded use limitations and definitions in our metadata for our spatial quarterly data reporting.
    - New programs included:
        - LiDAR Ground Inspections Distribution - WMP Section 7.3.5.7;
        - Install Settings on Distribution Line Devices EPSS - WMP Section 7.3.6.8;
        - EPSS Reliability Improvements - WMP Section 7.3.6.8;
        - SCADA Reclosure Installation - WMP Section 7.3.3.9.1;
        - Stakeholder Cooperation and Community Engagement - WMP Section 7.3.10.1;
        - Rincon Transformer Fuse Replacement - WMP Section 7.3.3.11.2;
        - Emergency Back-up Generation - WMP Section 7.3.3.11.3;
        - Butte County Rebuild (Undergrounding) - WMP Section 7.3.3.17.6; and
        - Line Sensor Installation - WMP Section 7.3.2.2.5.
- Developed Stakeholder Community Engagement and Butte County Rebuild Undergrounding initiative data in Palantir Foundry to enable automation of joins across individual data points to package and geospatially represent it through polygon or line dimensions.
- Proactively enhanced data quality by expanding the descriptors in the 'WMPInitiativeActivity' field for the System Hardening Distribution program by adding four additional hybrid activity descriptors: (1) Hybrid project: Covered

conductor installation and undergrounding of electric lines and/or equipment; (2) Hybrid project: Removal and retirement of OH conductor and undergrounding of electric lines and/or equipment; (3) Hybrid project: Covered conductor installation and removal and retirement of OH conductor; and (4) Hybrid project: Covered conductor installation, removal and retirement of OH conductor, and undergrounding of electric lines and/or equipment.

- Collected and updated existing metadata information for, but not limited to, 3.1.4 Lightning Arrester, 3.4.2 Wire Down Event, 3.5.1 Vegetation Inspections, 3.5.2 Vegetation Management Projects, 3.5.3 Asset Inspections, and 3.5.4 Grid Hardening. For example, in the 3.5.3.2 and 3.5.3.3 Asset Inspection Log and Point, PG&E clarifies that asset inspection data in the Q2 submission is better aligned to the Quarterly Initiative Update as both reports now reflect inspections that took place in High Fire Risk Areas (HFRAs) or High Fire Threat Districts (HFTDs).

**Q2 2022 Regulatory Developments**

- On May 17, 2022, Energy Safety hosted their second quarterly data check-in this year with electrical corporations to align on key issues, document feedback, and provide guidance, where applicable on compliance reporting. Much of the feedback raised from the electrical corporations during the working session were topics reiterated from February's quarterly check-in. Additionally, Energy Safety acknowledged responses are underway to provide guidance to PG&E against the discussion topics shared on March 1, 2022.
- Energy Safety also presented their Geographical Information System (GIS) Data Standard Version 2.2 Guidelines for adoption. PG&E provided additional reply comments for this version of the GIS Data Standard on June 8, 2022.[11] Comments outlined technical challenges and urged Energy Safety to employ a phased approach with clear prioritization for closing outstanding requirement gaps.

**Q1 2022 Submission Updates**

- PG&E incorporated 10 new WMP initiatives programs, 3 new field attributes, and enhanced quality in the metadata and in several existing fields in our spatial quarterly data reporting.
    - New programs included:
        - System Hardening Transmission – WMP Section 7.3.3.17.2;
        - Fuse Saver (Single Phase Reclosers) Installations – WMP Section 7.3.3.9.2;
        - Defensible Space Inspections on Distribution Substation – WMP Section 7.3.5.17.1;
        - Defensible Space Inspections on Transmission Substation – WMP Section 7.3.5.17.2;
        - Defensible Space Inspections on Hydroelectric Substations and Powerhouses – WMP Section 7.3.5.17.3;
        - Utility Defensible Space – WMP Section 7.3.5.20;

[11] *See* PG&E Comment on OEIS Geographic Information Systems Data Standard, Version 2.2 (June 8, 2022).

        - High-Definition Camera Installations – WMP Section 7.3.2.1.4;
        - Weather Station Installations and Optimizations – WMP Section 7.3.2.1.3;
        - LiDAR Routine Vegetation Transmission Inspections – WMP Section 7.3.5.8; and
        - Distribution Fault Anticipators (DFA) Installations – WMP Section 7.3.2.2.3.
    - Net new fields include:
        - Substation Rating – 3.1.6 Substation Feature Class; and
        - Conductor Overall Diameter and Conductor Ampacity – 3.2.3 Secondary Distribution Line Feature Class.
    - Enhanced fields include:
        - Exempt Status – 3.1.10 Transformer Detail Table; and
        - Exempt Status (for distribution splices) – 3.1.2 Connection Device Feature Class.
- Leveraged Palantir Foundry to incorporate camera installation and weather station installation or optimization into the submission which also marked the first '3.5.5 Other Initiative' reporting.
- Expanded on the information included in our metadata including, but not limited to, definitions and methodology used to identify and report on substation facilities.

**Q1 2022 Regulatory Developments**

- Energy Safety finalized version 2.2 of the GIS Data Standard on January 14, 2022. Initial draft comments provided by PG&E, Southern California Edison, and Cal Advocates, although acknowledged by Energy Safety, largely were not incorporated in the final version of the GIS Data Standard.
- On February 15, 2022, Energy Safety held their joint, quarterly data check-in meeting with the electrical corporations to communicate submission expectations around 2022 WMP data reporting. Additionally, electrical corporations had the opportunity to provide comments relating to the GIS Data Standard. Key topics included: challenges aligning spatial and non-spatial reports; one-to-many data relationships; request for technical themed workshops on feature dataset sections and confidentiality; and request for a phased approach, prioritization, and partnership to addressing reporting gaps.

**Q4 2021 Submission Updates**

- Adopted Energy Safety's updated schema (V2.2), incorporating two notable changes – provide scientific name for tree species and match units used for initiative targets with geometry of feature. To adopt these changes PG&E built a lookup table to include the new vegetation genus, species, and common name data.
- Net new data for Conductor Overall Diameter and Ampacity Rating fields added to 3.2.1 Transmission Line and 3.2.2 Primary Distribution Line.
- Included net new data reflecting developments in PG&E's Non-Exempt Surge Arrester Replacement Program (WMP Section 7.3.3.17.3) as part of the 3.5.4.2 Grid Hardening Log and 3.5.4.3 Grid Hardening Point Feature Classes.
- Leveraged Palantir Foundry to include new primary and foreign key identifiers that relate PSPS Event tables to the PSPS Damages tables. For PSPS Event tables we are

using multiple data types to create primary key inputs, including Date, Circuit ID, and Isolation Device ID which can be correlated with Primary key inputs for PSPS Damage Event ID tables which include Date and CircuitID.

- Improved the organization and quality of information provided in the metadata for majority of the feature classes and related tables provided in our Q4 2021 submission. Specific improvements included: (i) shifting Summary section inputs to the Description section to align with V2.2's reporting requirements 5; (ii) inclusion of Energy Safety's outlined subsections within each primary section; and (iii) populating the methodology subsection with file and table names for feature classes and related tables provided in the Q4 submission.

**Q4 2021 Regulatory Developments**

- On December 17, 2021, Energy Safety released V2.2 of the GIS Data Standard. Version 2.2 was the fourth version of the GIS Data Standard used throughout 2021. PG&E filed comments on this latest version of the Data Standard on December 27, 2021.[12] Through these comments, PG&E highlighted (i) the need for technical workgroups for collaboration and consistent implementation of the GIS Data Standard; (ii) request for additional time to assess changes applied to version changes and for release of all files simultaneously (including the need for alignment across guidance materials); (iii) request for clarification regarding geometry requirements; (iv) technical limitations regarding alignment with tabular reports and confidentiality labels.

**Q3 2021 Submission Updates**

- Adopted Energy Safety's updated schema (V2.1), accomplished through a series of working sessions with technical and business resources to apply revisions to existing data automation logic used to transform PG&E internal source system data into Energy Safety's updated data schema.
- Developed a Domain Quality Checker Tool via our Foundry Data Management Platform to help ensure that domain values in PG&E's FGDB aligned with Energy Safety's prescribed schema. This tool automates the comparison of PG&Es data outputs (FGDB domain structures) with the domain structures prescribed by Energy Safety.
- Added Expulsion Non-Exempt Fuse Replacements, Transmission Switches, and MSO Switch Replacements in Feature Class 3.5.4.2 & 3.5.4.3 (Grid Hardening Log and Point).

**Q3 2021 Regulatory Updates**

- On August 20, 2021, Energy Safety released an updated PDF document introducing a new release (V2.1) of the GIS Data Standard. On September 17th, 2021, Energy Safety reissued its GIS Data Standard (V2.1) that incorporated data fields and applied changes to the structure of the data schema with the expectation that electrical corporations adopt this schema for the Q3 2021 submission due November 1st, 2021.
- For its V2.1 assessment, PG&E found discrepancies and misalignments across Energy Safety's requirements documentation, including the PDF document and FGDB, which

[12] *See* PG&E Comment on Draft GIS Data Reporting Standard Version 2.2 (Dec. 27, 2021).

introduced considerable complexity and resulted in rework to ensure accurate assessment findings.

- PG&E filed Comments on the GIS Data Standard V2.1 on August 27, 2021, highlighting the following: (i) elements of the data schema that are subject to technical limitations; (ii) field requirements that are subject to interpretation and require clarification or are out of alignment with Energy Safety's PG&E 2021 WMP Action Items (iii) proposed methods to improve consistent implementation of the GIS Data Standard across electrical corporations, including the potential benefits of a formalized working group.[8] In addition, PG&E's V2.1 Comment highlighted the technical limitations of labeling confidentiality designations at the record level and outlined our approach to help mitigate the risk of mislabeling confidential records.

**Q2 2021 Submission Updates**

- Provided data in accordance with the GIS Data Standard (V2).
- Added transmission splice data in Feature Class 3.1.2 – Connection Device and other utility-owned power line data in Feature Class 3.6.1. – Other Power Line Connection Location.
- Progressed data quality through consolidation of Distribution Outage data across multiple source systems and trackers in Palantir Foundry. In addition, leveraged this platform to create connectivity across source systems that contain data for Feature Class 3.4.3 – Ignitions, enabling association between Ignition events and near weather station.

**Q2 2021 Regulatory Developments**

- On June 23, 2021, Energy Safety held a joint meeting with the electrical corporations to communicate expectations around 2021 WMP data reporting, including desired alignments across spatial and non-spatial reports.
- PG&E performed an initial assessment of overlaps in data reported between the Quarterly Data Report (QDR, non-spatial) and Energy Safety GIS Data Standard (spatial) submissions.

**Q1 2021 Submission Updates**

- Adopted Energy Safety's updated schema (V2) which introduced significant change. This was accomplished through re-development of existing queries, re-training of Data Stewards (SMEs), and changes in overall data collection, curation, and transformation techniques.
- Incorporated additional fields (e.g., PSPSDays and PSPSDaysDateBasis in the Critical Facilities feature class) and feature classes such as 3.6.5 Major Woody Stem.

- Developed a minimum viable product with our new data management platform to help manage data pipelines across source systems and automate reporting for select feature classes. This platform will continue to develop in future quarters.

**Q1 2021 Regulatory Development**

- On February 4, 2021, Energy Safety released an updated GIS Data Standard (V2) that incorporated new feature classes and data fields as well as changes to the structure of the data schema.

**Q4 2020 Submission Updates**

- Expanded mapping of Energy Safety GIS Schema to PG&E's internal SAP schema for feature dataset 3.1 (Asset Point) and 3.2 (Asset Line).
- Enhanced the quality by addressing prioritized findings from Energy Safety Evaluation. For example, PG&E increased the specificity of the Status Report and enhanced its accuracy relative to the FGDB data submitted. Additionally, a baseline Metadata entry was delivered.
- On February 4, Energy Safety released GIS Data Standard Version 2 which incorporated new feature classes and data fields as well as changes to the data schema structure.

**Q3 2020 Submission Updates**

- Instituted multiple measures to improve the quantity and quality of our submission
- Increased number of Feature Classes and data attributes submitted while providing a more comprehensive Status Report.
- Implemented data collection processes to enable more efficient data collection, curation, and organization, and mapping ES GIS Schema to PG&E's internal GIS schema for 3.1 (Asset Point) and 3.2 (Asset Line).

**Q3 2020 Regulatory Developments**

- On January 8, 2021, the Wildfire Safety Division (for ease of reference, the Wildfire Safety Division will be referred to by its new name, Energy Safety, throughout this document) provided its Evaluation of Pacific Gas and Electric Company's First Quarterly Report (Energy Safety Evaluation) detailing findings on completeness and quality of GIS data submitted by PG&E on September 9, 2020.

**Q2 2020 Submission Updates**

- Included 15 of 38 feature classes and 4 of 15 related tables in the FGDB format.
- Data for another 4 feature classes and 2 related tables was submitted in tabular format as an appendix file.

**Q2 2020 Regulatory Developments**

- Energy Safety released its Draft GIS (Geographic Information System) Data Reporting Requirements and Schema (GIS Data Standard) on August 5, 2020.