

Summary	This utility procedure provides uniform practices for the following activities associated with substation property:
	<ul> <li>Coordinating proposed third-party uses, projects, and activities (including leasing, licensing, and grants of easements).</li> </ul>
	Reviewing substation properties for potential sale.
	<ul> <li>Reviewing the need to acquire substation properties in the future.</li> </ul>
	Naming substations.
	Transferring assets.
	<ul> <li>Managing gas pipelines on substation property.</li> </ul>
	Level of Use: Informational
-	
Target Audience	The target audience includes the following Pacific Gas and Electric Company (PG&E) personnel:
	Electric maintenance.
	Engineering.
	Operations.
	Planning.
	Shared services.
	Generation and revenue development.
	Gas transmission and distribution (GT&D).
	<ul> <li>Any other employees involved with coordinating third-party substation property projects.</li> </ul>
-	
Safety	This procedure provides instructions to help prevent unsafe facility installations on substation properties, including information for avoiding accidental dig-ins to gas pipelines.
	Perform all work associated with property reviews in accordance with <u>Utility</u> <u>Standard SAFE-1001S, "Safety and Health Program Standard,"</u> and the <u>Code</u> <u>of Safe Practices</u> .



- Substation property map.
- Adjacent landowner parcel tax data.
- Substation ultimate and general arrangement outdoor drawings.

#### Table of Contents

Subsection	Title	Page
1	Coordinating Third-Party Projects Involving Substation Property	2
2	Reviewing Substation Properties for Potential Sale	3
3	Leasing Cellular Sites	4
4	Acquiring Property for Future Substations	8
5	Naming Substations	11
6	Transferring Assets	11
7	Gas Pipelines on Substation Property	13
8	Coordinating Tasks	15

#### **Procedure Steps**

## 1 Coordinating Third-Party Projects Involving Substation Property

- 1.1 The manager in charge of asset strategy must review and approve all proposed jobs involving substation property that are not initiated by asset strategy personnel (including facilities on customer-owned property).
- 1.2 Job reviews ensure that all proposed improvements, equipment, and facilities meet the following requirements:
  - Safe installation of equipment.
  - Coordination with other work at the same station.



### 1.2 (Continued)

- Integration with the existing substation design, including the following elements:
  - Ground grids.
  - o Physical clearances and mobile equipment access.
  - Coordination with future substation expansion plans (ultimate site plan).
  - o Compliance with existing standard designs.
  - Permanent access for inspection, normal station maintenance and operation, and emergency response.
  - o Compliance with applicable regulations and local agency requirements.
- 1.3 Third-party inquiries or land and environmental management (L&EM) personnel must initiate a review of substation property for proposed third-party use before making commitments allowing such use.
- 1.4 Third-party inquires are directed to the local L&EM office. L&EM personnel assign a land agent to coordinate requests and to ensure that asset strategy personnel review proposed uses in accordance with PG&E's land services (LS) <u>"Leases From" Manual for Corporate Real Estate.</u>

### 2 Reviewing Substation Properties for Potential Sale

- 2.1 Third-party inquiries or corporate real estate (CRE) personnel initiate a review of substation property for potential sale (for surplus property candidates) before disposition.
- 2.2 Third-party inquiries are directed to the transaction supervisor in charge of CRE personnel. CRE personnel request that asset strategy personnel review the substation property for potential sale. See <u>Attachment 1, "Reviewing Substation Property for Potential Sale,"</u> (flowchart).
- 2.3 The substation asset management engineer (SAM engineer) requests that transmission planning (TP), distribution planning (DP), and transmission/substation maintenance and construction (T/S M&C) personnel review the substation's long-term operational and planning impact in the event the property is sold.
- 2.4 The SAM engineer reviews (with appropriate PG&E personnel) any rights that must be retained for existing or planned facilities if the substation property is sold (for example, easements for existing or proposed lines crossing the property).
- 2.5 Based upon the reviews in <u>Step 2.3</u> and <u>Step 2.4</u> above, the asset manager replies to CRE personnel with a final recommendation to either sell or keep the property.



2.6 Some substation property sales may involve only a portion of the property. This is usually in situations where an agency (Caltrans, county, or city) needs a portion of the property in fee for an improvement project, such as road widening. The majority of these partial acquisitions are made under the threat of eminent domain.

#### 3 Leasing Cellular Sites

3.1 General Information

PG&E actively leases and licenses its substation properties to third parties for a number of uses. Asset strategy employees (along with the employees listed in <u>Section 8</u>, "Coordinating <u>Tasks.</u>" starting on Page 15) ensure that proposed third-party uses do not adversely affect the electric system or interfere with the maintenance, utility operations, or future expansion of substations. These employees review and approve each proposed use. Asset strategy personnel have final approval.

#### 3.2 General Requirements

- 1. Reviews and Approvals PG&E's new revenue development (NRD) personnel coordinate reviews and approvals between different PG&E groups and are the main contacts for the cellular company.
- 2. Documentation The cellular company must submit three sets/copies of all documents to NRD personnel.
- 3. NRD Approval NRD approval is required before the cellular company may seek city, county, and/or state, as well as Air Quality Management District (AQMD) permits and approvals. PG&E performs an initial walkdown of each proposed site. After PG&E approves the walkdown, the cellular company submits the final plans to NRD personnel for final approval, as set forth in <u>Item 10</u>, "Design Approval," on Page 5.
- 4. Environmental Assessment PG&E's local environmental specialist, along with the environmental representative of the cell site, completes a Phase-1 environmental assessment during the planning phase of the project, if needed or required.
- 5. Business Emergency Plans PG&E files locally-required business emergency plans with the appropriate certified unified programming agency (CUPA) covering the disclosure of chemicals such as battery acid and, if applicable, diesel fuel.
- 6. Setback PG&E maintains all local government jurisdiction setback requirements.
- 7. Fencing The cellular site must be separately fenced when it is located on PG&E substation property. The fence and gate must be constructed so that cellular company employees cannot pass through the substation fenced property for site visits, maintenance, or to refuel stand-by generators.
- 8. Power Supply A distribution source outside the substation fenced property provides electrical power for cellular sites. The cellular company contacts the local service planning department to obtain power, in accordance with <u>Electric Rule 16</u>, "Service <u>Extensions.</u>"



### 3.2 (Continued)

- 9. Grounding As a part of NRD procedures, the existing substation facility grounding study must be updated and revised. The cellular site is separately grounded, unless applied technology services (ATS) personnel (in consultation with asset strategy personnel) determine that a separate grounding is not required. ATS personnel provide the cellular company with a grounding design plan to ensure the proposed facility is safely grounded. These grounding studies are initiated during the initial phase of the NRD cellular site approval process.
- 10. Design Approval The cellular company is responsible for all required designs, plans, permits, and approvals and must submit such documents to NRD personnel for approvals.
- 11. At a minimum, the following requirements must be incorporated into the cellular facility design for the location or site:
  - Design for wind, seismic, and other environmental factors.
  - Spills prevention control and countermeasures (SPCCs).
  - Hazardous materials business plans (HMBPs).
  - Noise control, fire control, air quality, and business emergency plans.
- 12. The cellular company submits the following documents to NRD personnel:
  - Arrangement drawings of the proposed cellular site for initial review and approval.
  - Final design drawings of the cellular site approved for construction to update drawings and documents, including SPCC and HMBP plans, fire preplans, substation outdoor general arrangement, and grounding drawings.
  - Certification (the Checklist) Certification stating that all required permits (including drawings, plans, and documentation) have been obtained before starting construction.
- 3.3 Stand-By Generator Installation Requirements
  - Generator and Tank Use only diesel engine/generator assemblies with an Underwriters Laboratories (UL)-2200 listing and a fuel tank with a UL-2085 listing (with double-walled fuel storage no greater than 250 gallons [gal]). The fuel tank must be California State Fire Marshall (CASFM)-approved. The diesel engine must conform to Environmental Protection Agency (EPA) Tier 1 non-road emission regulations.



### 3.3 (Continued)

- 2. Sound Level The generator operation sound level must meet all local, city, county, and Occupational Safety and Health Administration (OSHA) requirements. Noise surveys and studies are required for each cellular site where a noise ordinance applies to the site, in areas near employees, or in residential and commercial areas. Implement all recommended noise abatement and mitigation measures, including the installation of sound enclosures.
- 3. Testing Limit testing of the diesel stand-by generator (preferably during normal business hours) to less than 60 minutes per month or as permitted by the local administrating agency, whichever is less. Provide copies of any permits issued by an air pollution control district (APCD) to PG&E's local environmental specialist.
- Diagram Submit single-line diagrams of the stand-by generator, transfer switch, etc., to PG&E for review and approval. This includes the generator's technical specifications.
- 5. California Fire Code The diesel generator/fuel tank design and refueling operations must comply with <u>California Fire Code Title 24: Part 9, Article 79, "Flammable and Combustible Liquids,"</u> requirements.
- 6. Hazardous Materials Storage Do not store any materials other than those used for operating equipment (including the generator fuel tank) at the site.
- 7. Power Transfer Use the open transition method (namely, "break before make") to transfer the power supply between the PG&E source and stand-by generator. The transfer is made through a double-throw transfer switch or an interlock scheme that prevents the PG&E source and stand-by generator from operating in parallel.
- Fence The diesel generator/fuel tank combination must be enclosed by a minimum 8-foot (ft) high fence on all four sides with a locked pedestrian access gate. If the fence is part of the substation perimeter fence, the top of the fence must be made of barbed wire, per <u>Numbered Document 059660</u>, "Fence Elevations and Notes – Property Fence and Gates."
- 9. Installation Outside Substation Fence If the proposed stand-by generator installation is on substation property but outside the substation fence and substation ground grid, the stand-by generator fence enclosure must be located at least 30 ft away from any existing transmission towers (unless it is located in the tower's footprint). The grounding and exact location must be in accordance with transmission line policies and guidelines for this application.
- 10. Installation Inside Substation Fence If the proposed stand-by generator installation is on substation property and inside the substation fence where the substation ground grid resides, the stand-by generator fence enclosure must be at least 15 ft away from any existing transmission towers (unless it is located in the tower's footprint) and substation equipment or structures. Grounding requirements determine the exact location.



### 3.3 (Continued)

- 11. Clearance from Combustible Materials Maintain a minimum 5 ft clearance from the diesel generator/fuel tank to all combustible materials.
- SPCC and HMBP Plans Contractors must submit signed certifications that all appropriate plans and permits are submitted or obtained and will be provided to NRD personnel.
- 13. Modifications after Installation After initial NRD approval and installation of a stand-by generator, no modifications or alterations are allowed to any equipment, fuel storage, wiring, etc. associated with the stand-by generator system without NRD personnel first approving the plans. The Certification (Checklist) statement is required with all modification applications.
- 14. Installed Stand-by Generators List NRD personnel must maintain a current list of stand-by generators installed on PG&E properties, right of ways, and/or easements with site names and locations.
- 3.4 Other Terms and Conditions
  - 1. Contractual Execute site license agreements to the master agreements for both the antenna location and associated equipment to limit PG&E liability for storing and potentially damaging any hazardous substance.
  - 2. Air Quality Provide a copy of the air quality permit from the local AQMD agency to NRD personnel before installing cellular equipment.
  - 3. Property Rights If any cellular company equipment is placed at a facility or property where PG&E does not own the underlying land in fee, the placement of a cellular site and any stand-by generator are subject to the property owner's approval. This information must be re-negotiated and included in an appropriate communications site license agreement exhibit. In addition, NRD personnel must approve the cellular site installation and any generator/fuel tank installation, per the requirements outlined in this procedure.
  - 4. Environmental Disturbance If additional ground space is required or an area must be disturbed further, review each cellular site to obtain a PG&E environmental clearance and re-verify any existing sites.
  - 5. Costs Bill all costs incurred by PG&E to the cellular company after a stand-by generator is installed or upgraded, including but not limited to the following services:
    - Site visits.
    - Drawings/document reviews and approvals.
    - Construction inspections.



### 3.4 (Continued)

- PG&E drawings/document updates.
- SPCC plan reviews, modifications, and re-certifications.
- 6. Liability PG&E is not liable for any abnormal events resulting from normal cellular facility emergency maintenance and refueling operations, including but not limited to PG&E outages, personal injury, fire, explosion, and hazardous material discharge.

### 4 Acquiring Property for Future Substations

- 4.1 General Information
  - 1. This section establishes procedures for evaluating the need to acquire property for a future substation that has not been granted a permit to construct (PTC) or certificate of public convenience and necessity (CPCN) by the California Public Utilities Commission (CPUC). PG&E must apply for a PTC or CPCN on a case-by-case basis.
  - 2. The senior area planner and local planning personnel ensure that the following tasks are completed to acquire future substation property:
    - Prepare a 5-year plan for the area, taking into consideration all possible alternatives for serving load in the area.
    - Work with PG&E personnel associated with the following functions to determine load-serving alternative costs: TP, electric system engineering, asset strategy, and CRE.
      - Costs must include but are not limited to interconnection costs, transmission reinforcement costs, land costs for various sites, substation costs, and distribution costs.
      - L&EM personnel prepare a site feasibility study for the properties in and around the area to determine land availability and cost.

#### 4.2 General Requirements

The senior area planner, local planning personnel, land representative, TP personnel, and substation engineering personnel ensure that the evaluation criteria described below are met:

- 1. Complete the following initial site screening criteria for all potential new substation sites:
  - Physical size and suitability of sites for facilities, such as topography, proximity to earthquake fault rupture or flood zones, slope, access, existing easements, property boundaries generally 2.5+ acres for a three-bank station.
  - Availability of sites not currently planned for development.



### 4.2 (Continued)

- 2. Use the following site evaluation criteria to review the specifics for each site that passes the initial site screening criteria (<u>Step 4.2.1</u> on Page 8):
  - a. Engineering Feasibility
    - Proximity of existing and forecasted electric load.
    - Existing and future substation radius in miles from the substation for distribution facilities sphere of influence:
      - o 21 kV Rural = 11 miles; Urban = 4 miles
      - o 12 kV Rural = 7 miles; Urban = 3.5 miles
    - Proximity to existing transmission and distribution (T&D) systems.
    - Length and location of new T&D lines.
    - Number of new towers or poles.
    - Number of highway, street, and/or railroad crossings.
    - Easement width.
  - b. Land Use
    - City and county land use and zoning designations.
    - Existing ownership.
  - c. Environmental Concerns
    - Proximity to sensitive biological resources.
    - Proximity to streams, wetlands, and floodplains.
    - Potential for landscaping and screening.
    - Vegetation removal for safety standards.
    - Necessity for transmission line creek crossings.
    - Archeological or cultural significance.
    - Visual, electromagnetic field (EMF), and noise concerns.
    - Geologic and seismic concerns.
    - Past land use analysis.



### 4.2 (Continued)

- d. Acquisition and Construction Costs
  - Purchase of land.
  - Purchase of transmission line, distribution line, and third-party easements.
  - Preparation of site (grading, landscaping, fencing, etc.).
  - Construction of transmission facilities.
  - Construction of distribution lines.
  - Construction of substation facilities.
  - Mitigation measures.
  - Environmental testing and mitigation.
- 3. After all costs are developed and the above criteria are met, develop a preliminary economic analysis (taking into account all feasible alternatives for serving load in the area).
- 4. If the most economic alternative is a new substation, ensure that the following tasks are completed:
  - All the requirements set forth in this <u>Section 4.2, "General Requirements,"</u> (starting on Page 8) are met.
  - Land use agencies and local jurisdictions are consulted.
- 5. Determine if the preferred site is within a volatile real estate market area where property values are appreciating rapidly and/or all available properties are being developed quickly.
- 6. Prepare a project analysis, which includes the information in the following <u>Step 7</u>, and forward that project analysis to the area engineering and planning director for routing and approval.
- 7. Provide the following information in the same format as a standard project analysis, including recommendations, background, and alternatives considered:
  - The load growth projection for the area, including the 5-year plan.
  - The preliminary economic analysis for alternatives to the 5-year plan.



### 4.2 (Continued)

- A summary copy of the site feasibility study prepared by LS personnel.
- A Geographic Information System (GIS) map showing existing and alternative substations, sphere of influence, existing area served (circuits emanating from the substation in one color), and geographic landmarks.
- An advance authorization.

#### 5 Naming Substations

- 5.1 PG&E assigns substation names based on adjacent geographic locations. This naming convention aids personnel in locating and navigating to the location. The naming convention also provides consistency over a long period of time, as well as useful information deduced from names based on certain regularities.
- 5.2 To select a name for a new substation, the SAM engineer and other project team members perform the following tasks:
  - 1. The SAM engineer coordinates with the project engineer (PE) and other project team members (if necessary) to review a detailed geographic map of the area.
  - 2. The substation naming and nomenclature conventions are described in <u>Attachment 2,</u> <u>"Substation Naming Conventions."</u>
  - 3. The SAM engineer reviews the proposed name with corporate communications personnel to confirm that there are no issues that could adversely affect local residents or agencies.
  - 4. The SAM engineer obtains approval from the director in charge of asset strategy personnel.
  - 5. The asset development supervisor notifies the Engineering Library System (ELS) of any new substation names at the end of each quarter.
  - 6. The ELS contact adds the new name to the appropriate dropdown menus for indexing drawings in ELS and sends an email confirmation back to the asset development supervisor.
  - 7. The asset development supervisor notifies business planning and project engineering supervisors of the new name.

### 6 Transferring Assets

6.1 This section covers cases where ownership of a piece of substation property is transferred to a distribution line. This typically occurs when unit substations are replaced with electrically equivalent, pad-mounted distribution line equipment.



- 6.2 Annual recurring expense savings are realized for the following reasons:
  - Environmental compliance SPCC plans not required for distribution line equipment.
  - Maintenance compliance Mandated monthly inspections for substation equipment are no longer required.
  - Security compliance Rules for distribution line equipment are less strict than for station equipment.
- 6.3 Capital savings are significant because a distribution line solution may be a fraction of the cost compared to a substation solution.
- 6.4 The roles and responsibilities of various work groups are as follows:

Substation and T-line Asset Strategy – Asset strategy personnel prepare the estimate (work order) to record the removal and retirement of substation assets and the addition of distribution line assets. See <u>Attachment 1, "Reviewing Substation Property for Potential Sale,"</u> for instructions from capital accounting on how to properly account for this change in asset ownership. However, be aware that using a single work order restricts tracking costs to one major work category.

Substation and T-line asset strategy personnel notify the following work groups to take action:

1. Transmission Operations – Substation

Remove the asset from the asset registry and archive the maintenance plans in SAP/WM.

- 2. Distribution Operations
  - Include the new distribution asset with the maintenance plans in the asset registry.
  - Perform maintenance and inspections per distribution maintenance practices.
  - Replace the substation lock with a distribution line lock.
  - For security purposes and at the request of distribution line personnel, the station fence may remain in place.
- 3. Environmental Services
  - Update the SPCC plan showing distribution equipment.
  - Inform city/other agencies about the update to the SPCC plan, as appropriate.



#### 7 Gas Pipelines on Substation Property

- 7.1 This section provides instructions for addressing gas pipelines on new and existing electric substation property, including switching stations.
- 7.2 New Substations
  - 1. The best strategy is to avoid purchasing properties for new substations that contain gas pipelines. The next best strategy is to keep the gas pipeline on the edge of the property at least 25 ft outside of and away from the ultimate build out of the substation fence. If the fence is less than 25 ft from the pipeline, initiate a pipeline study as described in <u>Section 7.4, "Pipeline Study,"</u> below.
  - 2. Asset strategy personnel must pre-approve exceptions for rare, special cases where the pipeline is within 25 ft of the fenced area of a new substation. The assigned ground grid expert at applied technology services (ATS) and gas personnel must perform an intensive ground grid review of all exceptions.
- 7.3 Existing Substations
  - 1. When a major substation project is initiated for any substation with gas pipeline on the property, initiate a study similar to how a ground grid study is initiated, per <u>Numbered</u> <u>Document 073114, "Grounding."</u>
  - 2. Use GIS to locate pipelines on substation properties for preliminary scoping purposes only. Establish actual pipeline locations by performing an on-site investigation, per <u>Utility Procedure TD-3320P-16, "Substation Excavation Procedure."</u>
  - 3. Charge funding and mitigation costs to the capital project initiating the study. Address gas pipeline issues in the job walkdown notes, per <u>Utility Procedure TD-3330P-01, "Job</u> <u>Walkdown."</u>
- 7.4 Pipeline Study
  - 1. The ATS ground grid expert performs a pipeline study, with concurrence from gas personnel.
  - 2. Details on electric and gas considerations for the pipeline study are found in the documents listed in the <u>Reference Documents</u> section on Page 18 of this procedure.
  - 3. The single-point-of-contact for gas personnel is the manager of pipeline engineering. The manager of pipeline engineering coordinates responses from corrosion engineering, integrity management, and pipeline engineering personnel.
- 7.5 Electrical Considerations for Pipeline Study
  - 1. Check the arcing distance. Make sure the pipeline is outside the soil arcing distance from the edge of any pipe to any ground grid or grounded foundation. Typically, that distance is 12–15 ft, but must be specifically calculated.



### 7.5 (Continued)

- 2. Check the induction distance. Make sure the induced currents from electric overhead lines, underground lines, or the ground grid do not impact cathodic protection. Pipeline coating (for example, epoxy) is a factor in determining the acceptable induced voltage and currents on the pipeline during normal and fault conditions, as well as pipeline coating stress voltage. From a design point of view, it is best if the electric lines cross perpendicular to the gas pipeline. In addition, make sure the requirement for electrical overhead clearances are met, per <u>Numbered Document 470591, "Electrical Clearances for 60 kV, 70 kV, 115 kV, and 230 kV Overhead Transmission Lines."</u>
- 3. Gas Review This study must include a review by gas personnel of corrosion engineering, integrity management, and pipeline engineering. The single-point-of-contact for gas pipelines in substations (the manager of pipeline engineering) coordinates the gas review. Pipeline coating (for example, epoxy) is a factor in determining the acceptable induced voltage and currents on the pipeline during normal and fault conditions, as well as pipeline coating stress voltage.
- 4. The asset strategy engineer comments on the following considerations:
  - a. Future expansion plans for the station in relation to the pipeline location.
  - b. The assurance that gas inspectors have proper accessibility to perform routine inspections per the Department of Transportation (DOT) and CPUC. In general, gas inspectors require escorted access into the fenced area of the substation and the ability to safely maintain and inspect the length of the pipe.
- 7.6 Gas Pipeline Considerations for Study
  - 1. The gas pipeline study must address access to gas lines for excavation, maintenance, and inspection purposes. This typically means adequate setback of fences, structures, foundations, and equipment to ensure there is ongoing access to the gas lines. Excavation may require up to 20 ft of working clearance from a transmission pipeline.
  - 2. Structures cannot be built over the gas lines. Fences are one common exception because they are easy to remove.
  - 3. Check the alternating current (ac) corrosion risk. Make sure the pipeline is not at an increased risk of corrosion.
  - 4. Check clearances. See <u>Code of Federal Regulations Title 49 (49 CFR): Part</u> <u>192.325</u>, for structures, hazards, etc.
    - a. Install each transmission line with at least 12 inches (305 millimeters [mm]) of clearance from any other underground structure not associated with the gas transmission line. If this clearance cannot be attained, protect the transmission line from damage that may result from the proximity to other structures.



### 7.6 (Continued)

- b. Install each main with enough clearance from any other underground structure to allow proper maintenance and to protect against damage that may result from the proximity to other structures.
- 5. Check induced currents. <u>49 CFR: Part 192.467 (f)</u> states:

"Where a pipeline is located in close proximity to electrical transmission tower footings, ground cables or counterpoise, or in other areas where fault currents or unusual risk of lightning may be anticipated, it must be provided with protection against damage due to fault currents or lightning, and protective measures must also be taken at insulating devices."

This requirement is covered by <u>Section 7.4, "Pipeline Study,"</u> on Page 13.

#### 8 Coordinating Tasks

PG&E employees involved with the following functions are responsible for coordinating the tasks involved with the substation property projects described in this procedure:

- Project management (PM).
- Transmission planning (TP).
- Distribution planning (DP).
- System protection.
- System automation.
- Gas distribution.
- Telecom and network services.
- Transmission/substation maintenance and construction (T/S M&C).
- Electric system engineering (ESE).
- Land services (LS).
- New revenue development (NRD).
- Service planning.
- Environmental services (ES).
- Applied technical services (ATS).
- Gas pipeline engineering.



### 8 (Continued)

The following PG&E employees are responsible for reviewing substation properties for potential sale:

- Substation asset management engineer (SAM engineer).
- TP engineer.
- DP engineer.
- Electric system reliability planning manager.
- Corporate real estate (CRE) transaction supervisor.
- Substation maintenance.

### **END of Instructions**



Definitions	<b>Code of Federal Regulations (CFR):</b> The federal agency that governs gas pipelines.
	<b>Corporate real estate (CRE) personnel:</b> PG&E employees who provide real estate services, including planning and managing facilities-related projects, aligning business strategies with real estate solutions, and operating and maintaining facilities.
	Economic Analysis Software Package (EASOP): Standard economic software used for evaluating capital plant additions provided by financial planning and analysis personnel.
	<b>Geographic Information System (GIS):</b> A computerized system capable of developing customized maps that display geographic features (such as lakes and rivers) and objects (such as pipes and stations). GIS technology integrates common database operations, including queries and statistical analyses, making it possible to add layers of information to these maps.
	<b>Substation property:</b> Any facilities and land located within a substation property line.
Implementation Responsibilities	The electric standards senior consulting engineer broadcasts this procedure to affected personnel after it is published on the TIL website.
Governing Document	Utility Standard TD-3350S, "Substation and Transmission Line Asset Strategy and Reliability"
Compliance Requirement/ Regulatory Commitment	Code of Federal Regulations – Title 49 (49 CFR): Transportation, Part 192, <u>"Transportation of Natural and Other Gas by Pipeline: Minimum Federal</u> <u>Safety Standards"</u>



Reference Documents California Fire Code – Title 24: Part 9, Article 79, "Flammable and Combustible Liquids"

Code of Safe Practices

Electric Rule 16, "Service Extensions"

"Leases From" Manual for Corporate Real Estate

Numbered Document 059660, "Fence Elevations and Notes – Property Fence and Gates"

Utility Standard SAFE-1001S, "Safety and Health Program Standard"

The following references pertain to <u>Section 7, "Gas Pipelines on Substation</u> <u>Property,"</u> starting on Page 13:

Electric:

- <u>Numbered Document 068177, "Overhead Transmission Line Design</u> <u>Criteria"</u>
  - "Joint Use Corridors" (Page 12)
  - o "Induction Distance Criteria" (Page 12)
  - o "Arc Distance Criteria" (Page 12)
- Numbered Document 073114 "Grounding"
  - Appendix B, "Ground Grid Analysis Process and Funding for PG&E Projects" (Page 12)
- Numbered Document 470591, "Electrical Clearances for 60 kV, 70 kV, <u>115 kV</u>, and 230 kV Overhead Transmission Lines"
- <u>Utility Procedure WP1902, "Evaluating Uses of Company Transmission</u> <u>Line Easements by Others"</u>
  - o Attachment 1, Section 10, "Pipelines" (Page 4)
- <u>Utility Procedure TD-3320P-16, "Substation Excavation Procedure"</u>
- <u>Utility Procedure TD-3330P-01, "Job Walkdown"</u>



	Gas:
	Code of Federal Regulations Title 49 (49 CFR)
	o Part 192.325, "Underground clearance"
	o Part 192.467, "External corrosion control: Electrical isolation"
	Electric and Gas:
	<u>Electric &amp; Gas Service Requirements</u> (Greenbook)
	PG&E Rights-of-Way Management Plan <sup>1</sup>
Appendices	NA
Attachments	Attachment 1, "Reviewing Substation Property for Potential Sale"
	Attachment 2, "Substation Naming Conventions"
Document Recision	This utility procedure cancels and supersedes Utility Procedure TD-3350P-09, "Property Review – Coordinating, Leasing, Selling, Acquiring, and Naming," dated 03/13/2013.
Approved By	Eric Corona, Manager
Document Owner	Tom Rak, Manager

<sup>&</sup>lt;sup>1</sup> Currently under revision



Document Contacts Stan Cramer (SJC6) Senior Consulting Engineer 8-323-7016

Rudy Bartley (R3B9) Supervisor 8-328-5709

### **Revision Notes**

Where?	What Changed?
Section 5	Replaced part of Section 5.2 with new Attachment 2.