

Management of Idle Electric Transmission Line Facilities Procedure

SUMMARY

This utility procedure details the requirements and assigns the responsibilities for actively managing Pacific Gas and Electric Company (Company) idle electric transmission line facilities. Management of such facilities includes identifying, investigating, de-energizing, documenting, and categorizing them.

This procedure supports [TD-1003S “Management of Idle Electric Transmission Line Facilities,”](#) [UO Policy 3-7, “Gas and Electric Operation, Maintenance, and Construction,”](#) and [Utility Standard: GOV-1038S, “Inspection and Corrective Maintenance Governance.”](#)

Level of Use: Informational Use

TARGET AUDIENCE

- Regulatory compliance personnel
- Land management personnel
- Mapping management personnel
- Electric transmission maintenance superintendents
- Electric transmission maintenance first line supervisors
- Centralized Inspection Review Team (CIRT) and AIR+ personnel
- Electric transmission planning personnel
- Electric transmission asset strategy personnel
- Electric distribution planning personnel
- Electric distribution asset strategy
- Transmission Line Project Mangers
- Transmission Grid Operations – Grid Control Center

SAFETY

This document complies with [Utility Standard SAFE-1001S, “PG&E Injury & Illness Prevention Plan \(IIPP\).”](#) and the [Code of Safe Practices](#). Proper identification, documentation, and management of idle overhead and underground electric transmission lines reduce future liability and enhance the safety of Company personnel and the public. Retaining information on idle facilities improves the ability of the Company to respond to requests for information when personnel encounter these facilities during patrols and inspections, construction, and excavation.

Management of Idle Electric Transmission Line Facilities Procedure

BEFORE YOU START

NA

TABLE OF CONTENTS

SUBSECTION	TITLE	PAGE
1	General Information.....	2
2	Roles and Responsibilities	3
3	Idle Line Facilities Identification.....	4
4	Idle Facility Verification.....	5
5	Idle Facility De-Energization: Determining Required Actions	6
6	Idle Facility De-Energization: Work Creation and Execution	8
7	Idle Facility De-Energization: Documentation	9
8	Re-Energization of Idle Facilities	9
9	Categorization as TOS or PA	9
10	Temporarily Out of Service Facilities	11
11	Permanently Abandoned Transmission Facilities	12
12	Reassessment of Idle Facilities	21
Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction		26

PROCEDURE STEPS

1 General Information

- 1.1 Idle facilities in the system can be found in three conditions: de-energized, transmission lines energized to distribution voltages, or transmission lines energized to transmission voltages.
- 1.2 Idle transmission line facilities must be **PATROLLED, INSPECTED, AND MAINTAINED** by transmission line maintenance personnel in compliance with Company standards and [G.O. 95 Rule 31.2 “Inspection of Lines” and Rule 31.6 “Abandoned Lines.”](#)
- 1.3 TD-1003S – MANAGEMENT of Idle Electric Transmission Line Facilities standard outlines the roles and responsibilities of personnel on how to identify, investigate, de-energize, document, and categorize idle facilities.
- 1.4 Transmission Line Asset Strategy (TLAS) **DRIVES** the process **AND INFORMS** stakeholders along the way. The process, from identification to de-energizing (if needed), is outlined in [TD-1003P-01, Attachment 1 “Management of Idle Transmission Line Facilities Flow Chart.”](#)

Management of Idle Electric Transmission Line Facilities Procedure

2 Roles and Responsibilities

- 2.1 Field personnel or Qualified Company Representative (QCR) must IDENTIFY potentially idle facilities through a notification to initiate investigation of the idle facilities.
- 2.2 CIRT must PROCESS the idle facility tags AND NOTIFY the TLAS supervisor that the investigation tags have been created.
- 2.3 For idle facilities identified by means other than notifications generated in the field, TLAS must INITIATE the idle facility investigation AND de-energization process.
- 2.4 TLAS must COMPLETE the following tasks:
 1. CONDUCT the investigation of idle facilities to determine extent and energization status.
 2. INITIATE the process for de-energizing lines found to be energized through the investigation.
 3. REQUEST the review AND coordinate inputs related to the categorization of the idle facilities (decision to keep, remove, or transfer) to ensure that all affected departments jointly complete the investigation AND DETERMINE whether there is the potential for future use of the facilities.
 4. NOTIFY all stakeholders of the categorization.
- 2.5 For de-energization notifications, T-Line maintenance and construction (M&C) AND the Grid Control Center (GCC) must FOLLOW existing processes related to execution of work.
- 2.6 Transmission planning (TP) personnel must REVIEW the facilities in question to determine whether the facilities may be needed for future transmission capacity or reliability.
- 2.7 Operations engineering (OE) OR transmission line asset development may PROVIDE input regarding potential use of the facilities (optional).
- 2.8 Transmission Asset Implementation may PROVIDE input regarding potential use of the facilities (optional).
- 2.9 Distribution planning (DP) personnel must REVIEW the facilities in question to determine whether they currently are in use for distribution service OR may be needed for future distribution capacity OR reliability work.
- 2.10 Corporate real estate (CRE), electric generation interconnection (EGI), account services, and rates and tariffs personnel must REVIEW the facilities in question.
- 2.11 EGI, account services, and rates and tariffs personnel must ENSURE that the rates and tariffs are properly applied AND in compliance, and that any agreements (special facilities, special service agreements, power purchase/interconnection agreements, etc.) are reviewed accordingly.

Management of Idle Electric Transmission Line Facilities Procedure

- 2.12 Account services personnel must REVIEW the ultimate disposition of circuits serving customers/generators.
- 2.13 Electric transmission geographical information system (ETGIS) MAINTAINS idle line designations, including the categorization of the line, based on input from TLAS via Right of Way (RW) notification. RW notification is a map correction notification tag submitted to geographical information system (GIS) mapping.

3 Idle Line Facilities Identification

- 3.1 There are multiple levels of review and confirmation for a transmission line to be identified as idle and the following confirmations are a few but not all of the reasons:
 - 1. Transmission Grid Operations idle line confirmation.
 - 2. Asset Strategy idle line confirmation from existing documentation.
 - 3. Customer confirmation that facilities are idle.
 - 4. During routine, or non-routine, inspection or patrol of assets, the QCR may create an idle facility investigation notification for CIRT to process.
 - 5. Drone inspector identifies a potential idle facility and requests an idle facility investigation notification.
- 3.2 QCR Actions in the Field
 - 1. The following are a few, but not all the, indicators of an idle facility:
 - a. Jumpers have been cut on all phases.
 - b. Conductors have been removed.
 - c. Insulators are undersized for the line.
 - d. Pole tops have been removed.
 - e. First Line Supervisor knowledge.
 - f. Documentation or field observations that an idle line is energized at distribution voltages.
 - g. Documentation or field observations that an idle line is energized at transmission voltages.

Management of Idle Electric Transmission Line Facilities Procedure

3.2 (continued)

2. WHEN suspected idle lines are identified or lines appear idle,

THEN CREATE an S5 notification with a B priority to initiate a de-energization investigation.
 - a. QCR CREATES an S5 notification with Facility – Damage – Action (FDA) of:
Other – Idle – Investigate.
3. In addition to the notification to initiate the de-energization investigation, CREATE notification(s) to address any safety issue(s) if these are found during inspection.

3.3 CIRT Actions

1. WHEN CIRT receives the S5 notification,

THEN CIRT must process the notification to a line report (LR) with a B priority
AND NOTIFY the TLAS supervisor.

3.4 Project Manager Actions

1. IF an idle facility must be created through a configuration change,

THEN the project manager must ENSURE that the project scope includes de-energization AND removal of the facility.

4 Idle Facility Verification

4.1 TLAS Actions

1. After the notification is generated, Asset Strategy must VERIFY that the facility is idle AND gather additional information that is needed to determine the appropriate actions to de-energize the facility if it currently is energized.
2. Asset Strategy must ATTACH the results of the de-energization investigation to the investigation notification in SAP.

4.2 INCLUDE the following information on the idle facility:

1. Extent of the idle facility: The whole line or a specified range of spans/structures if the line is partially idle.
2. Whether the line is energized or not.
3. Source of energization (for example, a transmission or distribution structure).

Management of Idle Electric Transmission Line Facilities Procedure

4.2 (continued)

4. IF the idle facility is not in ETGIS,

THEN INCLUDE additional information needed to map the facility. This information includes structure and conductor type, connections to other lines, open points, and coordinates.

4.3 GATHER the information using a desktop review. (For example, ETGIS, previous inspection records, structure data sheets, etc.) or field review.

1. CONTACT Transmission Grid Operations as part of the desktop review to help determine whether the facility is energized.

4.4 ENTER the information collected into [TD-1003-01-F01, "Electric Transmission Idle Line De-Energization Investigation Form."](#)

4.5 COMPLETE the de-energization investigation within 2 weeks of the investigation notification being created.

5 Idle Facility De-Energization: Determining Required Actions

5.1 TLAS Actions

1. Asset strategy must DETERMINE whether de-energization is needed.
2. IF de-energization is not needed,

THEN SUBMIT an RW request to update ETGIS to show the facility is idle.
3. IF de-energization is needed,

THEN TAKE the following actions:
 - a. IDENTIFY the scope of de-energization (not all idle structures may require de-energization; some already may be de-energized).
 - b. IDENTIFY the action to take to de-energize the facility. INCLUDE the following information:
 - Description of recommended work, for example, opening jumpers, reframing pole, adding flying bells or opening a switch
 - Photographs showing the structure that is connected to the energized source, the terrain at the base of the structure, and the configuration of adjacent structures
 - Map showing energized structures (for example, markup of ETGIS screenshot)

Management of Idle Electric Transmission Line Facilities Procedure

5.1.3 (continued)

- c. CONTACT applicable following stakeholders to notify them of a line to be de-energized:
 - Electric Management System (EMS)
 - Transmission Operating Diagrams
 - GIS Mapping
 - Strategic Governance: Base Case Team and independent system operator (ISO) Transmission Register
 - d. DETERMINE if the required work is Capital or Expense using the list in the de-energization checklist. Estimating is required for Capital work.
 - e. IF any of the idle assets are not in ETGIS,

THEN SUBMIT an RW request to GIS Mapping to have them added.
 - f. NOTIFY the GCC (if energized at transmission voltage) or Distribution Control Centers (DCC) (if energized at distribution voltage) that there must be a request to de-energize.
 - g. NOTIFY CIRT that a de-energization notification is needed.
4. ATTACH checklist to de-energization notification in SAP.
 5. REQUEST that Clerical Staff close the investigation tag.

5.2 CIRT and System Inspections Clerical Staff Actions

1. IF de-energization is needed:

THEN REQUEST Clerical Staff to create a de-energization notification, with FDA of Other – Idle – De-Energize.
 - For idle facilities in high fire threat districts (HFTD), ASSIGN a B-priority to the notification.
 - For idle facilities in non-HFTD areas, ASSIGN an E-Priority to the notification with a 6 month deadline. The work is REQUESTED to be completed within 90 days, but may be affected by other considerations, such as clearances and environmental permitting.
2. IF Asset Strategy has determined estimating is needed,

THEN ENSURE that the notification reflects this requirement.
3. REFERENCE the investigation notification number in the de-energization notification.

Management of Idle Electric Transmission Line Facilities Procedure

6 Idle Facility De-Energization: Work Creation and Execution

6.1 IF de-energizing is required,

THEN TRACK the work through the de-energization notification AND LEVERAGE existing processes for work under the de-energization notification, such as the Application for Work (AFW). Circuit Map Change Sheets (CMCS) that are required for distribution work.

6.2 SCHEDULE the timeframe for the work based on the following factors:

- Ability to schedule clearances
- Environmental permitting requirements
- Clearances typically can be scheduled sooner for lower voltage lines. Higher voltages, such as 230 kV, may take several months. Permitting in environmentally sensitive areas may take 6 months.

6.3 Transmission line M&C Actions

1. SUBMIT an AFW using the information that Asset Strategy has attached with the notification.
 - a. The AFW is sent to either the GCC (if the facility is energized at transmission voltage) or the DCC (if the facility is energized at distribution voltage).

6.4 GCC or DCC Actions

1. REVIEW the recommended field actions in the de-energization notification.
2. WORK with transmission M&C to complete the AFW.
3. PERFORM any additional actions required to prepare for work. For example: preparing switching logs.

6.5 Transmission Line M&C Actions

1. After the AFW is processed, Work Management must SCHEDULE the work.
2. M&C EXECUTES the work.

6.6 Work Verification Actions

1. PERFORM work verification review.
2. CLOSE notification.

Management of Idle Electric Transmission Line Facilities Procedure

7 Idle Facility De-Energization: Documentation

7.1 Transmission Related Actions

1. Transmission Operating Diagram mapper, USE AFW information to update operating diagrams AND CONFIRM updates with the GCC.
2. EMS must SEND notification to Asset Strategy that operating diagrams have been updated.

7.2 DCC Actions

1. FOLLOW the normal CMCS process as outlined in [TD-9450S, "Circuit Map Change Sheet Standard."](#)

7.3 TLAS Actions

1. FOLLOW-UP with the following stakeholders to inform them de-energization is complete:
 - GIS Mapping
 - Strategic Governance: Base Case Team and ISO Transmission Register
2. For lines that were de-energized through the GCC, SUBMIT an RW request to update mapping status to idle.

7.4 Mapping Actions

1. UPDATE GIS maps.

8 Re-Energization of Idle Facilities

8.1 TLAS must WORK with Grid Operations to assess if re-energizing is needed. Lines that have been de-energized may need to be re-energized later.

8.2 IF a line is approved for re-energization,
THEN INSPECT the line before being re-energized.

8.3 Before re-energizing, RESOLVE AND CLOSE OUT all open line corrective (LC) notifications.

9 Categorization as TOS or PA

9.1 CATEGORIZE the idle transmission line facility as either temporarily out of service (TOS) or permanently abandoned (PA) depending on an assessment of whether the input provides adequate justification to support keeping the idle facility. This assessment must be performed by TLAS and documented using [TD-1003P-01-F02, "Electric Transmission Idle Line Categorization Form."](#)

Management of Idle Electric Transmission Line Facilities Procedure

- 9.2 The following are examples of justification that may warrant keeping the idle facility and designating it as TOS:
1. If the line is already included in the 10-year plan.
 2. If it is required for conformance with procedures.
 3. IF an economic analysis supports designating it as TOS
- THEN the analysis must CONSIDER the risks AND benefits associated with keeping or removing the line.

NOTE

The potential of an idle transmission line facility to have future use is not enough to designate the facility TOS without additional justification as described above.

- 9.3 After categorization, CONTINUE to use the idle facility investigation Corrective Action Program (CAP) item to track the completion of remaining actions related to the idle facility.
- 9.4 CATEGORIZE AND HANDLE idle transmission line facilities that have potential future use for transmission capacity, reliability, or service and that have adequate justification for keeping the line according to the following requirements:
1. The facilities must be designated TOS.
 2. They must **not** be removed from service.
- 9.5 CATEGORIZE AND HANDLE idle overhead transmission facilities without adequate justification for designating them as TOS according to the following requirements:
1. The facilities must be designated PA.
 2. They must be removed or transferred.
- 9.6 CATEGORIZE idle underground transmission facilities as deactivated if they meet all the following conditions:
1. The facilities are not needed to transmit electricity.
 2. They cannot be practically repaired, replaced, or removed.
 3. They have no foreseeable future use.

Management of Idle Electric Transmission Line Facilities Procedure

10 Temporarily Out of Service Facilities

10.1 On being INFORMED of an existing idle transmission line facility, TLAS must CONTACT TP AND DP personnel to determine whether the asset has potential future use for transmission or distribution facilities (SEE [TD-1003P-01, Attachment 1 "Management of Idle Transmission Line Facilities Flow Chart"](#)), if adequate justification is provided for the potential future use.

1. DESIGNATE any facility, including 500 kV or grid interconnection facilities, that TP personnel determine may be needed for future capacity or reliability service within the next 10 years OR that has the potential to provide future transmission service temporarily out of service-idle (TOS-I).
2. DESIGNATE any facility that DP personnel determine has existing distribution needs temporarily out of service-distribution voltage (TOS-DV).

10.2 HANDLE AND DOCUMENT TOS facilities as follows:

1. Facilities designated TOS-DV, MAKE available to distribution planning personnel to be energized at distribution level voltages until such time as either of the following conditions develops:
 - a. The facilities are required for transmission use, TP must COMMUNICATE information on future projects to DP.
 - b. The idle facility is no longer required to serve distribution load, DP must NOTIFY TLAS.
2. TLAS personnel must REPORT facilities with current status of TOS to the responsible transmission line (T/L) superintendent.
3. The T/L superintendent must UPDATE the SAP Work Management (WM) system, (pending notifications on TOS facilities to be re-evaluated with input from TLAS).
4. The area transmission line maintenance superintendents must CONTINUE PATROLLING, INSPECTING, AND MAINTAINING facilities categorized as TOS.
5. The facility status must be UPDATED in ETGIS to either TOS-I or TOS-DV (TLAS to submit RW notification).
 - a. Project managers, assigned by TLAS, must CREATE electric transmission (ET) RW map correction notification AND INCLUDE the following information:
 - Authorization to transfer
 - Verification of current operating voltage (already validated by GCC and/or Operations Engineering as per section 4.4)
 - Idle facility designations as TOS-I or TOS-DV (already validated by TLAS as per Section 9.1)
 - Map showing facilities being transferred.

Management of Idle Electric Transmission Line Facilities Procedure

10.2.5 (continued)

- b. Engineering/Estimating REVIEWS ET RW map correction to verify operating voltage of the line, PROVIDES idle facility code if needed, AND REVIEWS accuracy of map showing idle facilities.
 - c. Engineering/Estimating, must FORWARD the ET RW map correction to mapping.
 - d. ET mapping must UPDATE ETGIS AND Electric Distribution Geographic Information System (EDGIS) to reflect transfer ownership according to the documentation provided with the ET RW map correction.
 - (1) REMOVE lines with poles from ETGIS AND TRANSFER to EDGIS. Installation job numbers and dates must be transfer as appropriate. Idle facilities to be mapped per [“Asset Data Quality & Process Management Communication” \(Topic: Idle Facilities\)](#) guidance.
 - (2) KEEP lines with towers in ETGIS AND IDENTIFY as distribution voltage. Lines with tower may also need to be added to EDGIS for ownership designation for transferred lines.
 - (3) Mapping, SEND ET RW map correction notification to A&M planner for closure.
 - e. A&M planner must PERFORM updates as needed AND CLOSE OUT ET RW map correction notification.
6. Capital accounting personnel must CONTINUE to classify facilities designated TOS-I or TOS-DV as transmission assets.
 - a. USE ETGIS to confirm the status as TOS.
 7. TLAS personnel must REMOVE TOS facilities from California Independent System Operator (CAISO) transmission register (TR) if applicable.

11 Permanently Abandoned Transmission Facilities

11.1 DESIGNATE facilities that transmission personnel determine meet the following criteria as permanently abandoned-transmission (PA-T):

- TP personnel DETERMINE that there is no future transmission capacity, reliability, or service need for the facility.
- Adequate justification for potential future needs is not provided.
- TLAS personnel DETERMINE that there is no strategic need for the asset.

Management of Idle Electric Transmission Line Facilities Procedure

- 11.2 If there is adequate justification for existing or future distribution needs for a facility, THEN DESIGNATE the facility as permanently abandoned transmission - distribution voltage (PAT-DV) AND HANDLE according to the following requirements:
1. ENSURE such facilities are made available to the distribution planning personnel to be taken over on a permanent basis.
 2. DOCUMENT the transfer of ownership distribution through a Memorandum of Understanding (MOU) to be routed through Electronic Document Routing System (EDRS). An MOU outline is provided in [TD-1003P-01-F03, "Memorandum of Understanding - Transfer of Transmission Assets to Distribution Form."](#)
 3. COVER the following requirements in the MOU:
 - a. Scope of assets to be transferred
 - b. Inspections of facilities
 - c. Existing and future maintenance of facilities
 - d. Mapping, accounting, and land department actions
 4. Scope of Assets to be Transferred
 - a. The preliminary scope of assets to be transferred:
 - ENSURE the transfer is based on the information in the idle line inventory maintained by transmission asset strategy and additional detailed information that was gathered during the de-energization investigation.
 - ENSURE the inventory contains the extent of the idle facility (i.e., whole line or only specified parts of the line) and feedback provided by distribution planning on their need for the line.
 - b. The final scope of the assets being transferred:
 - Must be DETERMINED through a job estimate to be created by distribution planning.
 - Distribution M&C must REVIEW the assets to be transferred as part of the job estimate.
 - The review must EVALUATE whether additional work may be needed, which can be added to the scope of the transfer project.

Management of Idle Electric Transmission Line Facilities Procedure

11.2.4 (continued)

- c. INCLUDE, in the scope, the following minimum information:
- Circuit name
 - Circuit ETL
 - Division
 - Circuit miles (total mileage and mileage being transferred)
 - Structure level information: structure number, SAP equipment ID, whether structure is a pole or tower, latitude/longitude, what part of the asset is to be transferred (i.e. transmission level, underbuild, or right-of-way only), last year inspected
 - A map showing the location of the assets (for example, screenshots from ETGIS)
 - Information required by capital accounting: voltage (kV) before and after transfer, list of SAP work orders and date orders must be closed (if orders are not closed, accounting cannot perform the asset transfer) asset class, component, Receiver Cost Center (RCC), county, capital accounting ET line number, electric transmission line (ETL) number, whether assets are in CAISO register
- d. CREATE a project to perform any necessary work on the assets being transferred. The scope must depend on whether any towers are being transferred and whether the transfer includes the transmission level, underbuild, or only the right-of-way; different scenarios are shown in [Table 1](#).
- e. CONSIDER that DP personnel may not want the facilities but may want to use the right of way to build new distribution assets.
- (1) In this case, CATEGORIZE the facility as PA-T.
 - (2) The project for removal of the transmission facilities must COORDINATE the removal schedule with DP personnel.
- f. USE the project as the mechanism for ENSURING that the appropriate accounting AND mapping updates are performed.
- g. Distribution planning must MANAGE AND SECURE funding for the project, with support from transmission asset implementation. Removal of any transmission assets must be performed under MAT 93J. Distribution work must be performed under MAT 2AF.

Management of Idle Electric Transmission Line Facilities Procedure

11.2.4 (continued)

- h. The official date of the transfer of all idle assets must occur at the end of the calendar year unless otherwise noted in the MOU.

Table 1: Project Scope

Scenario	Actions for Pole-Only Lines	Actions for Lines with Any Towers
Transfer underbuild	<ul style="list-style-type: none"> • Remove transmission level under MAT 93J: conductor and insulator removal, topping poles • Distribution M&C reviews assets to be transferred and identifies any additional required work • Transmission M&C repairs open tags (whenever possible, tags on the transmission level should be addressed by removing assets) • Already in EDGIS, but must require updates • Remove from ETGIS • Create distribution maintenance plan • Remove t-line maintenance plan from SAP • Land and accounting updates 	<ul style="list-style-type: none"> • Remove transmission level under MAT 93J: conductor and insulator removal, topping poles (if line also contains poles) • Distribution M&C reviews assets to be transferred and identifies any additional required work • Transmission M&C repairs open tags (whenever possible, tags on the transmission level should be addressed by removing assets) • Already in EDGIS, but must require updates • Retain in ETGIS with indication asset is distribution-owned • Retain t-line maintenance plan in SAP • Land and accounting updates
Transfer transmission level operating at distribution voltage	<ul style="list-style-type: none"> • Distribution M&C reviews assets to be transferred and identifies any additional required work • Transmission M&C repairs open tags • Update EDGIS • Remove from ETGIS • Create distribution maintenance plan • Remove t-line maintenance plan from SAP • Land and accounting updates 	<ul style="list-style-type: none"> • Distribution M&C reviews assets to be transferred and identifies any additional required work • Transmission M&C repairs open tags • Update EDGIS • Retain in ETGIS with indication asset is distribution-owned • Retain t-line maintenance plan in SAP • Land and accounting updates
Only want to transfer ROW	<ul style="list-style-type: none"> • Remove transmission structures under MAT 93J • Remove from ETGIS • Remove t-line maintenance plan from SAP • Install distribution poles • Update EDGIS with newly installed assets • Create distribution maintenance plan • Land and accounting updates 	<ul style="list-style-type: none"> • Remove transmission structures under MAT 93J • Remove from ETGIS • Remove t-line maintenance plan from SAP • Install distribution poles • Update EDGIS with newly installed assets • Create distribution maintenance plan • Land and accounting updates

Management of Idle Electric Transmission Line Facilities Procedure

11.2 (continued)

5. Inspections and Maintenance

- a. Area transmission line maintenance superintendents (ATLMS) must CONTINUE PATROLLING, INSPECTING, AND MAINTAINING facilities categorized as PAT-DV until transfer is complete.
- b. ATLMS must NOTIFY system inspections personnel of the transfer of assets so that maintenance plans can be updated as described below.
 - Other aspects of inspections and maintenance must be handled differently depending on whether the line being transferred contains towers.
- c. For lines containing only poles the following groups are responsible:
 - Transmission asset strategy must ADDRESS existing notifications as shown in [Table 2](#), ATTACH a list of pending notifications to the MOU, DEFINE which notifications must be completed before transfer, AND CHANGE tags that **are not** completed before transfer to distribution tags using existing processes that have been developed by CIRT.
 - Distribution personnel PERFORM future inspections and maintenance as shown in Table 2.
 - Distribution Asset Health Specialist MAKE Public Safety Power Shutoff (PSPS) decisions for transferred lines containing only poles.
- d. For lines containing any towers, the following groups are responsible:
 - Transmission M&C: Since distribution M&C may not have the equipment to perform repairs on towers or familiarity with working on towers, existing tags on lines containing any towers must be REPAIRED by transmission M&C AND must continue to be tracked through the T-line maintenance tracker (TLM), as shown in Table 2. A list of pending tags must be attached to the MOU.
 - Transmission personnel: Must CONTINUE to inspect and maintain distribution-owned tower lines, which requires that record of the transferred assets remains in ETGIS and SAP (SEE step [11.2.6 "Mapping"](#) on page 17).
 - Inspection of distribution-owned tower assets must continue to occur through a T-line maintenance plan in SAP.
 - The inspection frequency must be determined as if the structures are transmission assets, unless there are stricter external requirements for inspection of distribution assets.

Management of Idle Electric Transmission Line Facilities Procedure

11.2.5 (continued)

- A process for allowing transmission tags to be created by distribution personnel is being developed that must allow distribution to initiate repair tags outside of the routine inspection process. New LC tags on distribution-owned structures must be tracked in TLM.
- T-line personnel: Must CHARGE inspection AND maintenance activities to a distribution order.
- Transmission asset strategy, must MAKE a recommendation to the Distribution Asset Health Specialist for inclusion or exclusion of tower lines for PSPS to assist their decision making. If inspection data is used to make distribution PSPS decisions that is not collected through the transmission inspection forms, photographs from aerial (drone or helicopter) inspections can be used to gather this information.

Table 2: Treatment of Open and Future Notifications

Scenarios	Line with All Poles	Line with Towers
	Action	Action
Existing tags	MOU for the individual lines being transferred to show which tags must be repaired before transfer and which tags must be transferred to distribution with the asset	Tags remain as LC tags T-line M&C to repair
New tags found after transfer of assets	Tags created as EC tags Distribution M&C to repair	Tags remain as LC tags T-line M&C to repair

6. Mapping

- a. Project manager must PROVIDE the job folder to the transmission and distribution mapping groups for all transfers so that changes can be identified.
- b. Project managers assigned by TLAS must CREATE ET RW map correction notification AND INCLUDE the following information:
 - Authorization to transfer.
 - Verification of current operating voltage (validated by Engineering and estimating).
 - Idle facility designations as PAT or PAT-DV (validated by Engineering and estimating).
- c. For map showing facilities being transferred, Engineering/Estimating must REVIEW ET RW map correction to verify operating voltage of the line, provide idle facility code if needed, and review accuracy of map showing idle facilities.

Management of Idle Electric Transmission Line Facilities Procedure

11.2.6 (continued)

- (1) Engineering/Estimating must FORWARD the ET RW map correction to mapping.
- d. UPDATE ET mapping according to the following guidelines for ETGIS and EDGIS to reflect transfer ownership according to the documentation provided with the ET RW map correction.
- REMOVE lines with poles from ETGIS AND TRANSFER to EDGIS per Section 11.2.6.g below. TRANSFER installation job numbers and dates as appropriate. Idle facilities to be mapped per [“Asset Data Quality & Process Management Communication” \(Topic: Idle Facilities\)](#) guidance.
 - Lines with towers must remain in ETGIS, but IDENTIFY as distribution voltage per [Section 11.2.6.g](#) below.
 - ADD lines with towers to EDGIS for ownership designation for transferred lines.
 - Mapping must SEND ET RW map correction notification to A&M planner for closure.
- e. A&M planner PERFORMS updates as needed AND then CLOSEOUT ET RW map correction notification.

NOTE

Pole and tower lines have different requirements for mapping because of the continued involvement of transmission M&C personnel in maintenance and inspection activities on tower lines.

- f. KEEP pole-only lines in ETGIS with the notation PAT-DV until the transfer is complete.
- (1) REMOVE, after the transfer, from ETGIS and add to EDGIS.
 - (2) UPDATE SAP to reflect the changes in GIS.
- g. KEEP tower lines in ETGIS AND IDENTIFY as distribution-owned lines. NOTE the following additions.
- This designation is analogous to the current treatment of non-PG&E owned transmission lines where PG&E has agreements in place for maintenance and/or inspection.
 - ETGIS also must show the distribution voltage rather than the transmission voltage for these assets.

Management of Idle Electric Transmission Line Facilities Procedure

11.2.6 (continued)

- Tower lines may need to be added to EDGIS and to SAP as distribution assets if not already tracked at the distribution level. However, the tower lines also must remain in SAP as transmission assets so that they can be inspected under a transmission maintenance plan.
7. TLAS personnel must SEND capital accounting personnel a copy of the MOU to notify them of the transfer of assets.
 8. USE the MOU to allow capital accounting to remove the facilities from the transmission Federal Energy Regulatory Commission (FERC) rate base AND ASSIGN the asset to the appropriate General Rate Case (GRC) as a distribution asset.
 9. After the transfer to distribution is complete, ETGIS personnel SHOW line removed on FERC form 1.

11.3 IF DP personnel do not want the facility for distribution use,

THEN CATEGORIZE AND HANDLE as follows:

1. CATEGORIZE as PA-T, designated as "Facilities Identified for Removal."
2. UPDATE the facility status in ETGIS to PA-T until it is removed.
3. FOLLOW ETGIS mapping updates in Section [11.2.6](#) on page 17.
4. IF the idle facility is created as a result of an existing project,

THEN the sponsor of the project must GAIN funding approval to remove the facilities as part of the proposed capital project.

OTHERWISE CREATE a project AND SCHEDULE the line for removal. Note the following possible exceptions:

- IF distribution is currently using the facilities but does not have a future need for the facilities,
THEN COORDINATE removal schedule with DP personnel.
 - IF cellular attachments are present on any idle structures,
THEN, in the project, CONSIDER whether they can or cannot be removed.
5. PATROLL, INSPECT, AND MAINTAIN the facility until removed.
 6. The project manager must PROVIDE the job folder to the transmission AND (if applicable when lines energized to distribution level voltages) distribution mapping groups so that changes can be identified.

Management of Idle Electric Transmission Line Facilities Procedure

11.3 (continued)

7. KEEP facilities to be removed in ETGIS with the notation PA-T until the removal is complete.
8. TLAS must NOTIFY capital accounting to remove the facilities from the transmission Federal Energy Regulatory Commission (FERC) rate base and assign the asset to the appropriate General Rate Case (GRC) as a distribution asset.
9. After removal, ETGIS personnel SHOW line removed on FERC form 1.

NOTE

Some idle facilities may be found in the field that already are in a permanently abandoned condition. For example, a line may not exist in SAP or ETGIS but has been found in the field. In this case, TLAS may immediately classify the idle facility as PA-T, without further input. All other requirements in this procedure still apply to ensure proper removal of these facilities.

11.4 HANDLE underground transmission assets that meet the criteria listed in [Section 9.6](#) on page 10 as follows:

1. Designated as "Deactivated." COMPLETE [TD-1003-01-F01, "Electric Transmission Idle Line De-Energization Investigation Form."](#) and [TD-1003P-01-F02, "Electric Transmission Idle Line Categorization Form."](#) as required in [Section 4](#) and [Section 9](#) of this procedure.
2. UPDATE the facility status in ETGIS to PA-T.
3. SCHEDULE the underground cable for removal.
4. PATROLL, INSPECT, AND MAINTAIN the facility until removed.
5. Before the deactivation of the underground facility, MAKE the facility safe, secure, AND free of environmental hazards.

11.5 The following requirements apply to the removal of PA facilities:

1. TLAS personnel must CONSULT with CRE personnel to determine the owner or owners of the property underlying the permanently abandoned facilities using tax assessor maps for a title search.
2. CRE personnel must then ISSUE a certified letter to the property owner or owners stating that the facilities on their property are identified for removal.
3. TLAS personnel must OBTAIN funding from FERC for removal of the abandoned facility.

Management of Idle Electric Transmission Line Facilities Procedure

11.5 (continued)

4. The program manager for TLAS must ENSURE that the funding is available each year to remove facilities identified as PA and scheduled for removal.
5. TLAS personnel REMOVE PA facilities from CAISO TR.

12 Reassessment of Idle Facilities

12.1 At the end of each year, TLAS must GENERATE a list of idle facilities using the status indicator in ETGIS. Each idle facility on the list must have the opportunity to be re-assessed using the idle facilities categorization process.

12.2 INCLUDE in the list the following information:

1. Notification number
2. ETL number
3. Circuit name and number
4. Line section that is idle
5. Status (IF-UR, TOS-I, TOS-DV, PAT, PAT-DV)
6. Order number for removal project (if applicable)
7. Completion date (if applicable)

12.3 PROVIDE the idle facilities list to transmission planning, transmission implementation, operations engineering, and distribution planning for any new input since the previous assessment.

12.4 IF an idle facility is re-assessed AND the re-assessment warrants a change in its categorization,

THEN USE [TD-1003P-01-F02, "Electric Transmission Idle Line Categorization Form."](#) to document the re-assessment AND all applicable requirements for the new categorization must be followed.

12.5 INCORPORATE in the finalized annual list the new TP, transmission implementation, OE, and DP input AND ANNOTATE the newly identified idle facilities AND any changes in the assessments to existing idle facilities.

12.6 ROUT the final list through EDRS.

12.7 PROVIDE an updated TOS list to transmission line maintenance superintendents and CIRT as part of the annual updates.

Management of Idle Electric Transmission Line Facilities Procedure

END of Requirements

DEFINITIONS

Deactivated: Underground electric transmission facilities that are no longer needed to convey electricity; cannot be practically repaired, replaced, or removed; and have no foreseeable future use (formerly known as abandoned).

Electric distribution asset: Land rights, fee property, fences, buildings, conductors, structures, and associated equipment that operates at voltages below 50,000 volts (V).

Electric transmission asset: Conductors, structures, and associated equipment that operates at voltages equal to or greater than 50,000 V.

Facilities identified for removal: Idle facilities that do not have foreseeable future use.

Idle facilities investigation: The process used to determine whether facilities are either “temporarily out of service” (TOS) or “permanently abandoned” (PA).

Idle transmission facilities: Facilities that are not currently being used to serve transmission load or generation facilities. Idle facilities can be either transmission line facilities that are de-energized or facilities that are energized at distribution voltages.

Idle Facility – Under Review (IF-UR): Idle facilities that are under review and have not been categorized as TOS or PA.

Inspection: A ground or aerial observation of an existing asset, including the easement area, looking for abnormalities or circumstances that can negatively impact safety, reliability, or asset life. Individual elements and components are carefully examined through visual or routine diagnostic tests, and the conditions are repaired at the time of the inspection or are graded or recorded for future maintenance repairs.

Inspector: A qualified Company representative who, by reason of training and work experience, can perform an accurate and complete assessment of electric transmission line facilities under inspection.

Maintenance: Performance of preventive or corrective actions to ensure the safety and reliability, and to extend the asset life of electric transmission line facilities. Includes capital and expense expenditures for tasks associated with the inspection, repair, refurbishment, and possible replacement of existing electric transmission line facilities to ensure that they are safe and reliable.

Permanently Abandoned (PA): Transmission line facilities that have been determined by the Company to have no foreseeable future use. For underground transmission facilities, see “Deactivated.”

Permanently Abandoned Transmission (PAT): Same as above.

Management of Idle Electric Transmission Line Facilities Procedure

Definitions (continued)

Permanently Abandoned Transmission - Distribution Voltage (PAT-DV): Facilities that TP personnel have determine have no future strategic needs for the asset.

Property Owner: The owner of the underlying fee property on which a transmission line facility is located.

Temporarily Out of Service (TOS): Idle facilities that have foreseeable future use. Facilities that are “Temporarily Out of Service” must be either de-energized or energized at distribution voltage. In addition, they must be patrolled, inspected, and maintained for future use.

Temporarily Out of Service - Idle (TOS-I): Idle facilities that have no foreseeable future use and are designated “idle”.

Temporarily Out of Service – Distribution Voltage (TOS-DV): Idle facilities that have existing distribution needs and are energized at distribution level voltages.

Title Search: The process by which the customer or property owner must be identified by Corporate Real Estate (CRE) using local county property tax records.

Transmission Line Facilities: Conductors, structures, and/or associated equipment that are constructed for transporting electric power of 50,000 V and above from one point to another.

IMPLEMENTATION RESPONSIBILITIES

- Electric transmission planning managers must notify personnel under their direction of this standard.
- Transmission line superintendents must notify first-line supervisors of this standard.
- Electric transmission asset strategy managers must notify other affected Company personnel of this standard.
- TLAS, TP, OE, DP, CRE, EGI, account services, and rates and tariffs personnel are responsible for performing the roles assigned to them under this standard.
- All personnel are responsible for complying with this standard.

GOVERNING DOCUMENT

NA

Management of Idle Electric Transmission Line Facilities Procedure

COMPLIANCE REQUIREMENT / REGULATORY COMMITMENT

California Public Utility Commission (CPUC) General Orders (G.O.s):

[G.O. 95, "Rules for Overhead Electric Line Construction"](#)

[G.O. 128, "Rules for Construction of Underground Electric Supply and Communication Systems"](#)

Records and Information Management:

Information or records generated by this procedure must be managed in accordance with the Enterprise Records and Information (ERIM) program Policy, Standards and Enterprise Records Retention Schedule (ERRS). Refer to [GOV-7101S, "Enterprise Records and Information Management Standard."](#) and related standards.

Management of records includes, but is not limited to:

- Integrity
- Storage
- Retention and Disposition
- Classification and Protection

REFERENCE DOCUMENTS

Developmental References:

[Utility Manual TD-1001M, "Electric Transmission Preventive Maintenance Manual"](#)

[Utility Standard TD-1001S, "Electric Transmission Line Inspection and Preventive Maintenance Program"](#)

Supplemental References:

[Utility Procedure 028854 "Connectors for Transmission Conductors"](#)

[Utility Procedure 068177, "Overhead Transmission Line Design Criteria."](#)

[Utility Procedure TD-3310P-01, "Request for Waiver from Substation and Transmission Line Standards"](#)

[Utility Procedure TD-3330P-00, "Substation and Transmission Line Engineering Process Overview"](#)

[Utility Standard TD-2459S, "Management of Idle Electric Distribution Lines"](#)

Management of Idle Electric Transmission Line Facilities Procedure

APPENDICES

[Appendix 1: Evaluation of Permanently De-energized Transmission Lines from Induction](#)

ATTACHMENTS

[Utility Procedure TD-1003P-01, Attachment 1, "Management of Idle Transmission Line Facilities Flow Chart"](#)

[Utility Procedure TD-1003P-01, Attachment 2, "Desktop Overview of Idle De-energized Circuit, Sectionalizing Example"](#)

[Utility Procedure Form TD-1003P-01-F01, "Idle Transmission Facility De-Energization Form"](#)

[Utility Procedure Form TD-1003P-01-F02, "Idle Transmission Facility Categorization Form"](#)

[Utility Procedure Form TD-1003P-01-F03, "Idle Transmission Facility MOU for Transfer to Distribution Form"](#)

DOCUMENT REVISION

This utility standard cancels and supersedes the following documents:

- Utility Bulletin: TD-1003S-B002, "Evaluation of Permanently De-energized Transmission Lines from Induction", revision 0, dated 11/05/2020
- Utility Procedure: TD-1003S-B002, Attachment 1 "Desktop Overview of Idle De-energized Circuit" revision 0, dated 11/05/2020

DOCUMENT APPROVER

██████████, Supervisor Transmission Line Asset Strategy

DOCUMENT OWNER

██████████, Manager Electric Transmission Asset Strategy

DOCUMENT CONTACT

██████████, Senior Asset Strategy Engineer, Transmission Line Asset Strategy

REVISION NOTES

Where?	What Changed?
Complete document.	Clarifies requirements for the categorization and dispensation of idle electric transmission line facilities. Updated to the 2020 style of writing. Added TD-1003S-B002 as appendix 1.

Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 1 of 8

WHAT YOU NEED TO KNOW

The purpose of this document is to mitigate the effects of induction on de-energized idle transmission lines.

The effects of induction caused by an energized line is dependent on the strength of the electrical magnetic field (EMF). Induction on the idle de-energized transmission line is directly proportionate to the loading (current) of the energized line and indirectly proportionate to the distance (radius) between two lines (Electric induction is proportional to the voltage).

The higher the current the higher the magnetic field. The higher the radius the less the electric field impact on the de-energized line.

Mitigation for Public Safety Power Shutoff (PSPS) induction issues are being evaluated and will be addressed later in a separate document.

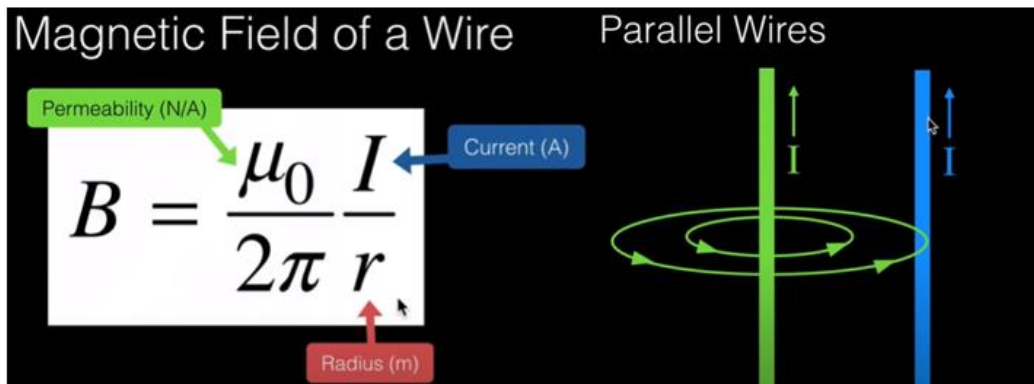


Figure 1. Magnetic Field of a Wire

Energized circuits that parallel a de-energized idle transmission line contribute to induction. The length of parallelism is an additive effect and will increase the induction experienced on a de-energized line. The longer an energized circuit runs parallel to a de-energized circuit, the more induced voltage the circuit will experience.

1 Idle De-energized Transmission Lines

- 1.1 OPEN all switches on the de-energized idle transmission lines (if applicable).

Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 2 of 8

2 Information Gathering of Induction on Permanently De-Energized Transmission Lines

2.1 REVIEW each idle de-energized transmission line for the effects of induction.

1. De-energized idle transmission lines can have a variety of sources of induction, including but not limited to the following:

- a. Energized transmission lines on the same structure
- b. Adjacent energized transmission lines not on the same structure
- c. Third party electrical lines

2.2 Transmission Line Asset Strategy shall COORDINATE with Transmission Line Work Methods, Transmission Line Maintenance, and Construction to complete the following tasks:

1. IDENTIFY the induction sources to the de-energized idle transmission line.

2. Transmission Line Work Methods and Asset Strategy shall GATHER the following information:

- a. De-energized Idle transmission line name:
 - Identify all open points along the idle line
- b. Energized parallel transmission lines:
 - Name
 - Voltage
 - Length of line that is parallel to de-energized idle transmission line
- c. Distribution lines can be disregarded as an inducer circuit because the induced current or induce voltage is negligible.

Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 3 of 8

3 Circuit Assessment

3.1 Initial De-Energized Circuit Assessment (Desktop Review) by Asset Strategy and Team

1. Sectionalizing the De-Energized Idle Transmission Line

- a. With the information gathered from [step 2](#) on page 27, applied technology services (ATS) shall PROVIDE general guidance on where sectionalizing can be done by:
 - (1) Sectionalize de-energized idle transmission conductor at locations where it no longer parallels an energized circuit, SEE [Figure 2](#).
 - (2) Sectionalize the de-energized idle conductor at locations where distribution underbuilt no longer shares the same structures, SEE [Figure 2](#).

NOTE

SEE [TD-1003P-01 Attachment 2 "Desktop Overview of Idle De-energized Circuit"](#) for an example of a desktop review of the FULTON-LAKEVILLE-IGNACIO 230kV line.

- b. CONSTRUCT open points per [Utility Document 068177, "Overhead Transmission Line Design Criteria."](#) The use of flying bells can be utilized where dead ends are not present.

Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 4 of 8

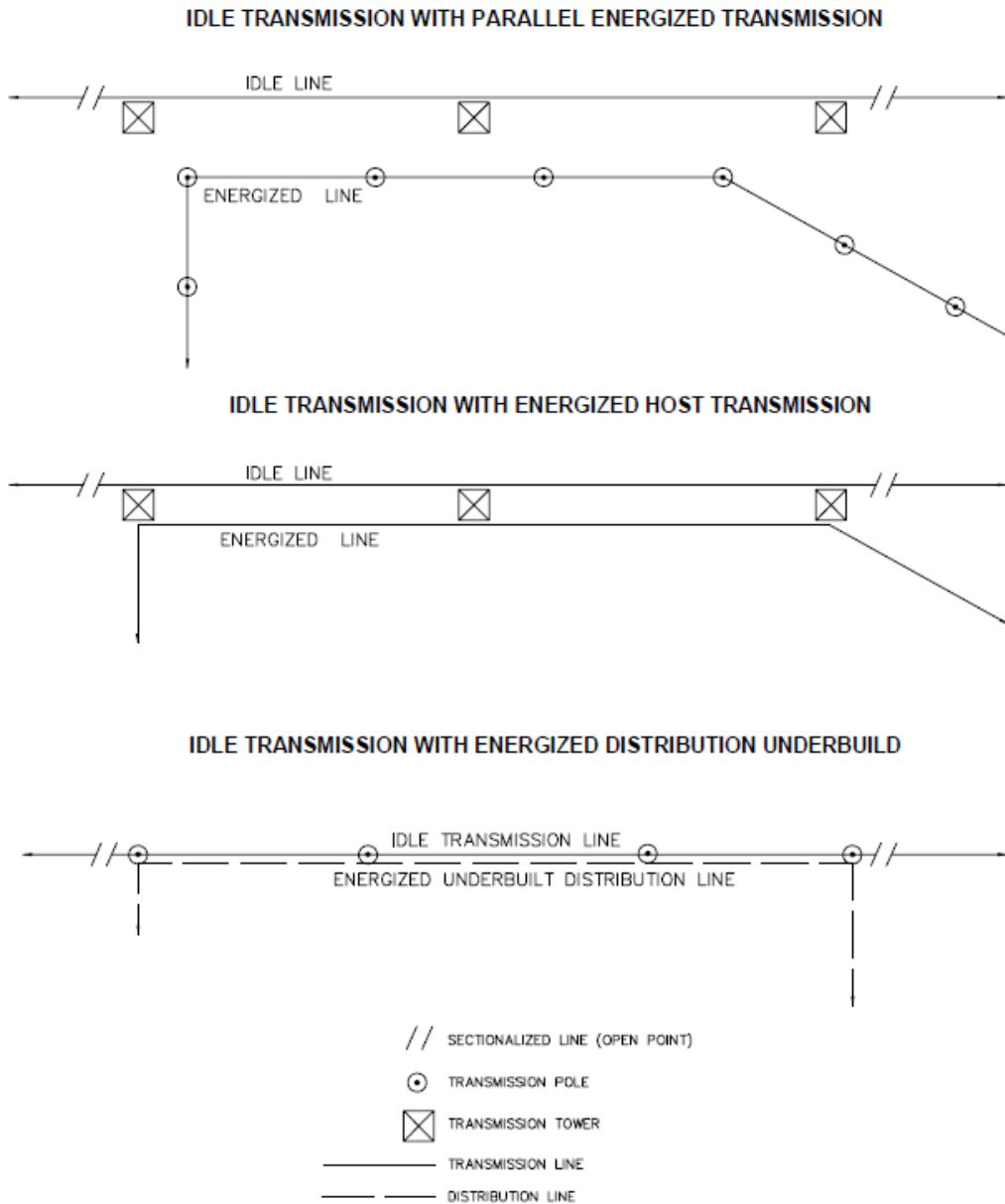


Figure 2, Parallel and Underbuilt Energized Circuit

3.1.1 (continued)

Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 5 of 8

3.1 (continued)

2. ATS and team must PROVIDE recommendations if additional actions and/or detailed model evaluation is needed.

Sectionalizing of a de-energized circuit can mitigate the effects of induction. A uniform sectionalizing length cannot be determined because of site specific factors (i.e., soil resistivity, switch locations, voltage, proximity and length of parallel energized circuits, length of de-energized idle transmission line, structure access, etc.)

- MEASURE the voltage of each phase of the de-energized idle transmission line. The measurement is to be taken prior to the installation of any grounds on the de-energized idle transmission line.
- MEASURE voltage of each phase and current (if grounding is installed). The voltage and current measurement information is to be provided to ATS to evaluate the results of the initial assessment.
- ESTABLISH additional open points to sectionalize the de-energized idle transmission line into shorter sections.
- PROVIDE detailed modeling and assessment if needed.
- INSTALL permanent grounding per recommendation.

4 Ground Mitigations

If grounding is recommended, permanent grounding is the preferred design. However, temporary grounding can be permitted under a standards waiver request [TD-3310P-01, "Request for Waiver from Substation and Transmission Line Standards"](#) with the guidance of Transmission Line Work Methods and ATS for certain scenarios.

4.1 Temporary Grounding

Temporary grounds are not necessary if permanent grounding will be implemented or the removal of de-energized idle transmission line is completed.

1. Using Temporary Protective Grounds
 - a. INCLUDE in the waiver application form the following information:
 - A plan to inspect and maintain the effective electrical continuity of the temporary grounds. The planned duration should not exceed 6 months.
 - An expected installation date of temporary grounding.
 - Potential structure locations to install temporary protective grounds.
 - Soil resistance estimates or measurements of those potential structures.

Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 6 of 8

4.1.1 (continued)

- b. OBTAIN an approved waiver to install temporary grounding.
- c. CONTACT Transmission Line Work Methods for optimum design.
- d. **Do not** CONSIDER any temporary protective ground that is installed to mitigate induction as part of a temporary protective grounding scheme that is required to perform work on a de-energized transmission line. The requirements in the protective grounding manual must be followed prior to working on the de-energized transmission line.

4.2 Permanent Phase Conductor Grounding Design

1. IF the de-energized idle transmission line will remain de-energized for 31 days or longer,

THEN INSTALL permanent grounding.
2. FOLLOW [Utility Procedure TD-3330P-00, "Substation and Transmission Line Engineering Process Overview"](#), M&C project management procedures to initiate a project order to install permanent grounds.
3. Grounding to the Steel Structure or to Grade (wood/composite poles)
 - a. FOLLOW all safety procedures AND protocol to install these connections.
 - b. CONNECT the phase conductors to the #4 strand ground wire with appropriate connectors for conductor size and type on all three phases.
 - USE document [028854 "Connectors for Transmission Conductors"](#) as a reference. If conductor connectors are not reference in 028854 for the type of conductor size needed, refer to engineering.
 - c. CONNECT the #4 strand copper ground wire to steel structure or covered pole ground GR2 assembly (for wood or non-steel poles) to ground.
 - d. For lattice steel structures, CONNECT the ground wire directly to the structure.
 - (1) USE connector M301546 Ground terminal for #4 solid wire.
 - (2) DRILL hole on lattice steel to install ½" bolt.
 - (3) INSTALL ground terminal on lattice steel.

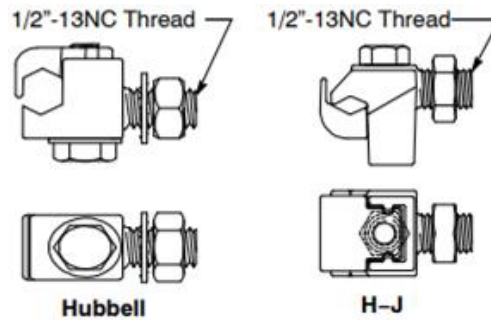
Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 7 of 8

4.2.3.d (continued)

- (4) Then CONNECT the ground wire to the ground terminal.



- e. For tubular steel poles, CONNECT the ground wire to the grounding tabs with the use of the ground terminal M301546 or use GR2 assembly to the grounding tabs at of tubular steel pole. UTILIZE aluminum banding to attach GR2 assembly to the pole every 15'.
- f. For wood poles and other non-conductive poles, CONNECT the ground wire to a GR2 assembly.
- g. For light duty steel poles, CONNECT the ground wire to a GR2 assembly AND CONNECT GR2 assembly to the above grade grounding tab at the base of the pole. UTILIZE aluminum banding to attach GR2 assembly to the pole every 15'.

4. CREATE a grounding detailed engineered drawing of the grounded structure(s).
5. UPDATE structure data sheet(s) of the de-energized idle line to document the grounding detail.

5 Maintenance Condition and Performance of Grounding System

5.1 For Temporary Protective Grounds (TPG)

1. VALIDATE the performance of the grounding system as stated in approved waiver:
- a. ENSURE TPGs are still installed AND correctly connected.
- b. REPLACE broken, damage, or missing TPGs.

Management of Idle Electric Transmission Line Facilities Procedure

Appendix 1: Evaluation of Permanently De-Energized Transmission Lines from Induction

Page 8 of 8

5.2 For Permanent Grounds

1. VALIDATE the performance of the grounding system:
 - a. Visually CHECK that grounds are installed AND connected.
 - b. REPLACE broken, damaged, or missing permanent grounds.